ESTABLISHED IN 1872

PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. LXXXVII No. 3 Thursday, July 19, 1928

To Construct Two News Print Mills in Canada

Nova Scotia Project, on Mersey River, Near Liverpool, Actually Started—Upwards of 2,000 Men Will be Employed By End of Month—Erection of New International Mill at Dalhousie, N. B., to Start Shortly—Each Plant to Have Capacity of 250 Tons Per Day —Anglo-Canadian Mills Produce 400 Tons Daily

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., July 16, 1928.—Despite the fact that the capacity of the average news print mills exceeds the average consumption by some 20 per cent, plans are going ahead for the immediate construction of two big news print plants—the first on the Mersey River, near Liverpool, N. S., and the second at Dalhousie, N. B., each to have a capacity of 250 tons per day, and the two together to involve a total expenditure of at least $30,000,000.

Work on the Nova Scotia project actually started this week, and the Royal Securities Corporation of Montreal, states that before the end of the month upwards of 2,000 men will be employed at the camps.

The Power Commission is to develop the necessary hydro-electric energy and will sell it at cost to the company, which will require as much current as now consumed by Halifax and Dartmouth combined.

In addition the Province is giving the company its choice of Crown lands to the extent of 1,000,000 cords. Its choice has fallen on the Cape Breton properties, so that the contention about these properties is at last settled.

The power development on the Mersey River will involve an expenditure of approximately four million dollars. Three units will be developed: The Lake Falls, 13,000 h.p. capacity; The Big Falls, 9,000 h.p. capacity, and the Lower Great Brook Falls, 3,300 h.p. capacity. The work will be involved not only in the construction of the units at the three places named, but another extensive undertaking will be the laying of pipe lines.

The power contract calls for 105,000,000 K.W. hours of electric energy yearly delivered to the newsprint mill at cost, which cost, it is estimated by engineers, will be less than $20 per horse power.

The mill at Dalhousie, N. B., is to be erected by the International Paper Company and the contractors announce that work will start next month, the closing date for the tenders being July 20. The initial production will be 250 tons per day with provision for the extension of the capacity. The piling grounds will have space for over 100,000 cords of pulpwood while the plant will be used for the manufacture of news print. The screenings will be used for the making of common wrapping paper.

Pulp Mill for Alberta

A despatch from Calgary says: Visions of the establishment a few miles west of Lethbridge of a large pulp mill, using $200,000 worth of electrical energy annually, were held up before Lethbridge business ment at the weekly Board of Trade luncheon on June 27, by G. A. Gaherty, managing director of the Calgary Power Company.

Mr. Gaherty, speaking at the luncheon in the Marquis Hotel, said his company had gone into the pulp mill project for the south, finding a source of timber supply in the Crowsnest Pass and an excellent site some distance west of the city.

Anglo-Canadian Producing on 400-ton Basis

The four machines in the new plant of the Anglo-Canadian Pulp and Paper Mills at Quebec are now producing at the rate of 400 tons of news print per day. Half of this output is being sold to the Hearst newspapers.

Rolland Paper Company

Public offering of $2,500,000 Rolland Paper Company 5½ per cent first mortgage bonds is being made here, following the recent successful offering of $1,500,000 of 6 per cent preferred stock.

The new Rolland Paper Company is the successor to the company of the same name which since 1882 has been a leading manufacturer of high grade bond, writing and ledger papers. It is the oldest producer of fine papers in Canada and has built up a very successful Dominion-wide business, which enjoys an unusual measure of good-will among the trade by reason of the noted high quality of its products.

The company's mills are located at Mont Rolland and St. Jerome, Que., and have a present annual capacity of approximately 7,000 tons. Part of the proceeds of the present financing is to be used for the installation in St. Jerome of an additional rag stock paper machine, with auxiliary equipment, which will bring the total capacity of the plants to more than 8,200 tons per annum.

Canadian Paperboard Company

An issue of $240,000 first mortgage 7 per cent sinking fund gold bonds of the Canadian Paperboard Company is being made here, the proceeds to be utilized in connection with the construction and equipment of the company's new mill in Toronto and for the extension and betterment of its operating properties.

The Canadian Paperboard Co., Limited, has been in business more than thirty years and at the present time is supplying more than 25 per cent of the requirements of the Canadian trade. The present operating plants are located at Frankford and Campbellford, Ont., and at Montreal.

Kimberly-Clark Financial Structure Changed

Assets of Historic Old Company to be Transferred to New Corporation Chartered Under the Laws of the State of Delaware—Authorized Capitalization, Based on Market Value of Common Stock, Is $56,000,000—No Change in Management Contemplated

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., July 16, 1928.—Complete reorganization of the corporate and financial structures of the Kimberly-Clark Company, of Neenah, Wis., is revealed in developments of the last ten days. There is now created a new corporation under the laws of Delaware, to be known as the Kimberly-Clark Corporation. All assets of the historic old company are to be transferred to the new one, but aside from this and the sale of securities, there appears to be little change from the business as previously conducted. No change in management is contemplated, according to a statement of F. J. Sensenbrenner, president.

Authorized capitalization of the new corporation, based on the market value of the common stock, is $56,000,000. This represents first mortgage gold bonds of $20,000,000 six per cent cumulative preferred stock with a par value of $100 a share, and 500,000 shares of common stock of no par value. As the common stock is offered on the market at $52 a share, its present value is construed as $26,000,000. All of the preferred stock is to be presently outstanding, but only 490,000 shares of the common will be sold, and only $6,000,000 of the bonds. The common probably will be listed on the New York and Chicago stock exchanges.

This is a remarkable contrast to the inception of the Kimberly-Clark Company in 1872 when the initial investment was $30,000. Its growth has been accomplished mainly through the re-investment in the business of surplus earnings over a period of years. Manufacture of print paper, at first one of the principal products of the company, was abandoned years ago and the seven plants in Wisconsin and New York have been devoted to book paper and rotogravure paper. Substantial earnings also are derived from the manufacture of specialties, one of which is the basic material for Kotex.

Two corporations really are acquired, the Kimberly-Clark Company, of Wisconsin, and the Kimberly-Clark Company, Inc., of New York, a subsidiary. The seven plants of these two had a paper production in 1927 of more than 141,000 tons, and developed horse power of 19,400. Another subsidiary wholly controlled by the company is the William Bonifas Lumber Company, owning enough timber lands to keep the plants supplied at full capacity for the next 25 years. A large part of its timber is hardwood, which is sold to outside companies.

The Kimberly-Clark Company also holds majority ownership of common stock in the Spruce Falls Power and Paper Company, Ltd., of Canada. The remainder is held by the New York Times Company, to whom 50 per cent of the news print supply of the mill is contracted. The total investment in the Spruce Falls project is $27,000,000, of which the Kimberly-Clark Company furnished $6,500,000. The remainder represents the New York Times Company investment and the proceeds of the sale of bonds.

Current assets of the company are listed at $8,668,431.28 and current liabilities at $3,872,309.57. Net earnings have grown from $1,395,364.18 in 1923 to $2,317,367.18 in 1927. They were $805,841.54 for the first three months of 1928. Last year the common stock, which will now be outstanding would have averaged earnings of $4.65 a share net. The average of the last four or five years would be $4.45 a share.

J. C. Kimberly Elected Head of Neenah Paper Co.

James C. Kimberly has become president of the Neenah Paper Company, of Neenah, Wis. He was elected at a meeting of stockholders and directors last week and succeeds J. A. Kimberly, Sr., who died recently. Other officers are: D. K. Brown, first vice president and general manager; Kimberly Stuart, second vice president and secretary, and Leo O. Schubart, treasurer. Other members of the board of directors are John A. Kimberly, Jr., and I. J. Stafford.

Ahdawagam Bonds Called for Payment

All outstanding bonds of the Ahdawagam Paper Products Company, of Wisconsin Rapids, Wis., have been called for payment. These bonds were issued August 1, 1922. All maturities are to be taken up at the call price, according to Frank R. Walsh, secretary.

Foremanship Training Plans

Three school periods have been arranged for the annual foremanship training classes conducted in vocational schools of Wisconsin, according to plans announced by H. G. Noyes, state director of pulp and paper education. The first classes will start September 3, the second on December 2, and the third on March 4. M. W. Smith, state foremanship training leader of Kansas, has been engaged as an instructor. The schools will be arranged in groups for various cities, so that expert instructors can be provided, and can spend one evening a week in each place.

News of the Industry

A check of $50 was given to the fire department by the Menasha Printing and Carton Company, of Menasha, Wis. This is a reward to the firemen for the services rendered when the paraffine department was the scene of a severe fire recently. The fire department of Neenah, Wis., which rendered assistance, also was tendered a check for a like amount.

The death of Louis M. Mann, of Milwaukee, is announced. He was in charge of the United States engineering office of the Fox River Valley for many years and had much to do with navigation and water power activities in the paper mill area. A breakdown in health caused him to take his own life with a revolver.

Excavation work has been completed on the $150,000 addition to the mill of the Appleton Coated Paper Company, Appleton, Wis. The building will be 240 feet long and 104 feet wide, and is to be of brick and concrete, with reinforced steel. It will house the finishing department, and the finishing machines will be moved from the old rooms to the new as soon as the work is completed.

Announcement is made of the marriage of Miss Emily Phelps Mead, of Wisconsin Rapids, Wis., to Henry Perrine Baldwin, of Cleveland, Ohio. The bride is a daughter of George W. Mead, president of the Consolidated Water Power and Paper Company. The ceremony was performed at the Wisconsin Rapids Congregational church by Dr. Ozora S. Davis, of Chicago. Mr. and Mrs. Baldwin will reside in Chicago.

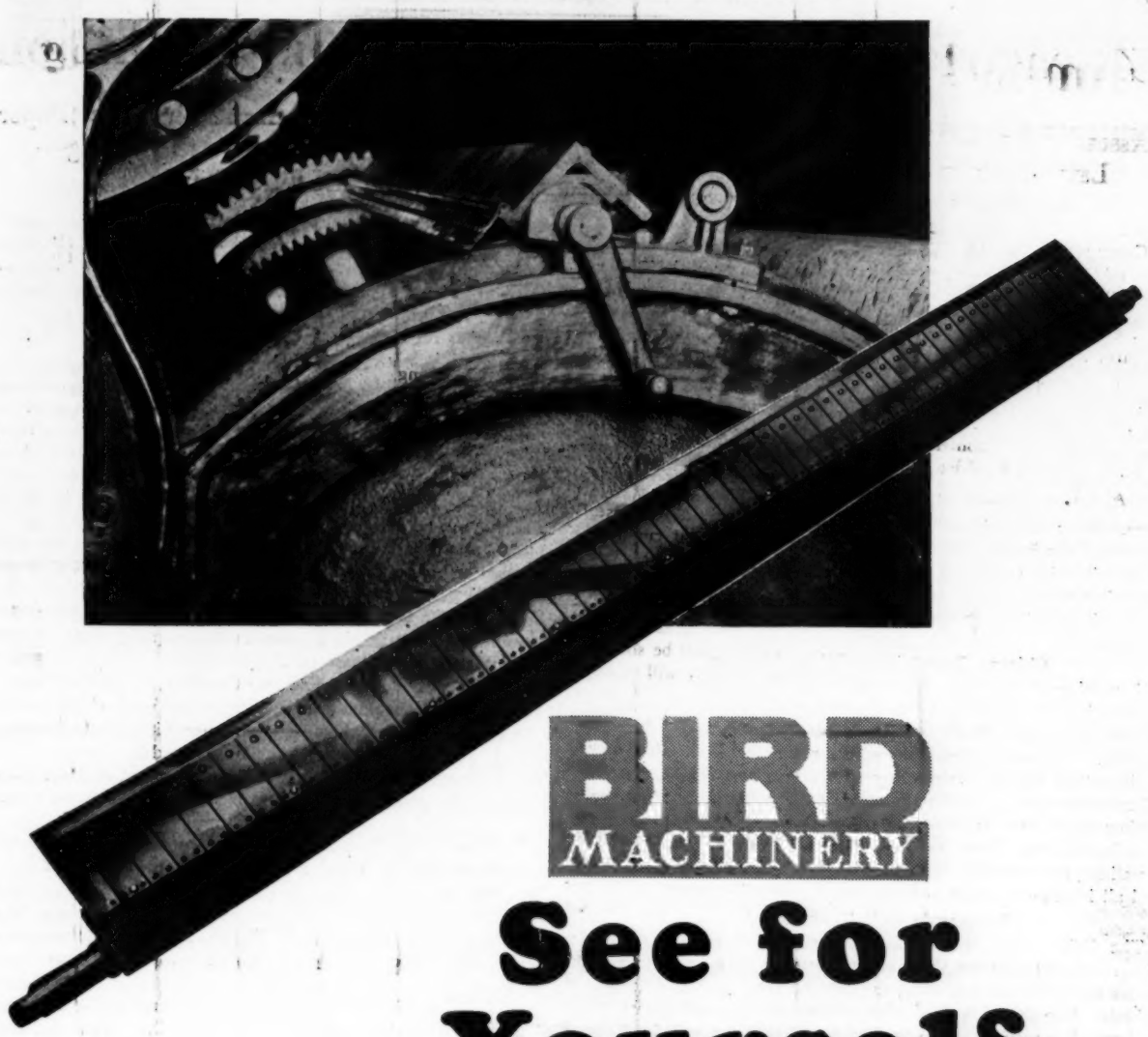
Machinery Arriving for New Union Bag Mill

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., July 12, 1928.—The Union Bag and Paper Corporation, which is building a new plant on the tide-flats at Tacoma, has contributed much toward dock activity in that region in the past few months.

The German liner Witram, landing early in July, discharged 140 tons of machinery from Europe for this plant. The Williams liner Willwelo left 6,000 blocks of soapstone weighing 438 tons, to be used for furnace linings.

When this mill is operating it is expected that the sulphur shipments will add considerably to the cargo at this port, along with other operating materials.



BIRD
MACHINERY

See for Yourself

Put a Vickery Doctor on any roll in your mill. Watch it. See how it polishes and keeps the roll polished without adjustment and with no possibility of scoring.

You'll see why it's such a tremendous advantage to have Vickery Doctors on every roll.

Let us send you one on free trial.

The Vickery Doctor

BIRD MACHINE COMPANY
South Walpole • • • Massachusetts

2024

Chicago Paper Market in Satisfactory Condition

Distributors Report Business More Active Than a Year Ago—Improvement in Fine Paper Industry Attributed to Increased Direct Mail Activities Caused By New Postal Ruling—Paper Board Operation Slows Seasonally—Prices in All Lines Steady

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 16, 1928.—The Chicago paper market, moving into mid-summer months, shows itself in a much better condition, according to reports, than was evidenced twelve months ago. The new postal ruling has caused a considerable volume of direct mail business to go forth printed on an appreciable amount of paper supplied by Chicago paper merchants. In each case, when paper men in this city have been interviewed relative to business conditions, the reply has always been qualified as "fine, for the season of the year." Prices in all lines are reported steady with demand fair in most cases. The board market has slowed up seasonally and is expected to be a bit less active for a short time. News print is in fair demand, with consumers purchasing along seasonal lines. Book paper is holding up well and fine paper feels the effects of the increase in direct mail business. The tissue paper market is quiet, according to reports, and the same holds true for wrapping paper, though merchants in the latter line seem to be well satisfied with conditions when the time of year is taken into consideration.

Chicago Board Men Off to Niagara

A number of Chicago members of the Paperboard Industries Association are to attend the next regular meeting of that organization, July 18 and 19 at the Clifton Hotel, Niagara Falls, Ontario, Canada. Many of them are making a combined vacation and business trip out of the meeting. Executive and standing committees have been notified of meetings on Tuesday, July 17, at the Clifton Hotel, the standing committee meeting at 10:00 in the morning and the Executive Committee at 1 in the afternoon. Interesting programs have been prepared for the two day gathering and all indications point to a very well attended meeting.

Salesmen's Golf Tournament

The Chicago Division of the Salesmen's Association of the Paper Industry has the third of its riotously happy golf tournaments scheduled for July 19 at the Green Valley course, Wheaton, Illinois. The Green Valley course is a stiff one and plenty of excitement is assured the big crowd confidently expected by Tom Donahue, of the Warren Manufacturing Company, who is chairman of the golf committee. A feature of the second golf event held at Long Beach, where Ray Russell of the Marathon Paper Company was generally accepted as the genial host, was the winning of the low net prize by Jim Coy, Flambeau Paper Company, president of the national body of the Salesmen's Association and office mate of Ray Russell. The blind bogey prize went to Clarence Rasmussen of the Chicago Paper Company while L. H. "Bill" Nye of the Eastern Manufacturing Company won the bunting for the least number of putts over the eighteen hole test. Although the event took place late in June the executive offices of the Salesmen's Association are still celebrating, for Jim Coy is telling the world from the offices of the president of the national group while Bill Nye is connected with the Eastern Manufacturing Company, where H. R. Knott, president of the Chicago Division, also holds forth.

Chicago Paper Association Activities

The Chicago Paper Association is endeavoring to promote closer relationship between its own group and the Milwaukee Association. As a result several members are to attend a meeting of the Milwaukee Association on July 31 to return the visit of two members of the Wisconsin city who came to Chicago on June 26 as guests of the Chicago Paper Association. Other guests at the June 26 meeting were Harry Newton of the American Paper Company and Helmuth Sielass of the A. E. Sielass Paper Company.

The Chicago Paper Association also held a special meeting on July 5 at which time the subject of engaging the permanent secretary of the association was discussed. The association has postponed its big outing, which was announced a few weeks ago for July, until August 15, at which time members of the association and others connected with the paper industry will hie up to the North Woods for a real three day vacation.

News of the Trade

Westvaco Inspirations for Printers, Number 36, is a delightfully interesting depiction of the use of humor to sell merchandise. A plentiful array of actual advertisements have been borrowed from the originators and are used, in color and black and white to show the forcefulness, attractiveness and usefulness of humor in this day and age. Much of the success of this current issue is due to the breezy and interesting copy that explains and comments on the illustrations. The West Virginia Pulp and Paper Company also issued, on July 2, its current mill price list, embodying 25 different grades of paper.

Edgar A. Hall, Jr., of the Pilcher-Hamilton Company, 349 West Ontario street, Chicago, was in Minneapolis, Minn., a part of last week on a business trip.

A. B. Aiken, of the Intercity Paper Company, of St. Paul, Minn., and Mrs. Aiken, passed through Chicago last week on their way to the coast and a trip abroad. Their interesting itinerary covers England, Scotland, France and the Netherlands.

W. J. Plant, of the Swartwood-Nelson Paper Company, Minneapolis, is the proud father of a baby boy born about two weeks ago.

J. B. Jones of the Western Newspaper Union, Omaha, Nebraska, spent several days in Chicago during the past week.

Bob Butterworth, of the Champion Coated Paper Company, and his wife, are enjoying a vacation in the vicinity of Franklin, New Hampshire, which happens to be the scene of Mr. Butterworth's boyhood days. They are expected to return to Chicago some time next week.

Mrs. A. W. McNulty, the wife of the treasurer of the McNulty Paper and Twine Corporation, of 535 West Chicago avenue, Chicago, gave birth to a 7½ pound baby girl on June 26. The daughter did not come into the world like its father, who was accompanied by a twin brother.

Railroad Improvements at Mechanicville

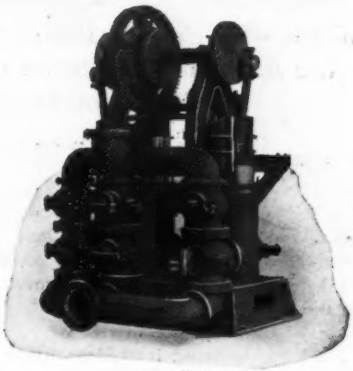
[FROM OUR REGULAR CORRESPONDENT]

MECHANICVILLE, N. Y., July 17, 1928.—The West Virginia Pulp and Paper Company and the Boston & Maine Railroad have made joint application to the Public Service Commission for permission to construct a new switch and sidetrack in North Main street, Mechanicville, connecting the plant of the paper company with the tracks of the railroad company. The City of Mechanicville has already granted its consent. A hearing was held in the matter this week before the Public Service Commission in Albany.

The testimony introduced at the hearing was to the effect that the paper mill plant is to be enlarged in capacity and the additional sidetrack was necessary in order to avoid confusion and congestion in the shipping of the finished products of the company. It was further stated that the construction of the new track will so accommodate the shipping facilities of the paper company that the number of movements across the street over the present and new sidetracks together would probably be less than are now operated over the existing sidetrack. The paper company now handles about 33,000 tons of freight a month. The commission will announce its decision later.

Automatic Collapsible Reel

Safety Steam Joint

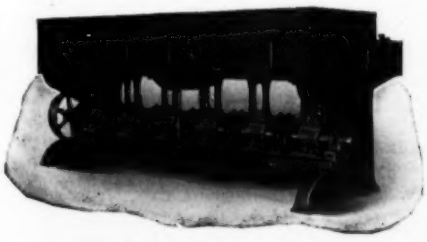


Triplex Stuff Pump

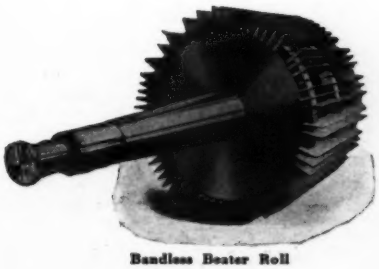
Get Our Bid

WHEN you need any paper mill machinery, get our bid, but don't buy on a basis of price alone. Compare designs and construction before buying. ¶ Remember, we make a complete line of equipment, including Fourdrinier and Cylinder Machines. ¶ Ask for details and a bid on whatever you need. Bulletins on any product sent on request.

DOWNINGTOWN
Manufacturing Co.
Downingtown, Pa., U.S.A.



Diaphragm Screen



Bandless Beater Roll

Six Shaft Compensating Winder

Boston Paper Market Practically Unchanged

Quietness of Present Period Considered Normal and Considerable Activity Is Anticipated in the Autumn—Condition of Fine Paper Industry Is Fairly Satisfactory—Box Board Situation Is Improving But Collections Are Reported To Be Poor

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 16, 1928.—Although mulling along in a featureless market, the paper trade looks for considerable activity in the fall. The quiet of the present period is, of course, normal, and has given rise to no alarm. Fine paper business is fair, although there is no rush, in some quarters of the trade. Box board continues to show improvement, but collections are said to be poor.

In old papers the situation is virtually unchanged. The price of No. 1 books, heavy, is $1.55 to $1.60 per hundred pounds, and the tendency is easier. Higher prices for this stock are prevailing abroad. Other grades are at the same levels. Bagging has remained steady, as well as new and old domestic rags. Domestic roofing rags are firm, with the No. 1 stock quotable at $1.15 to $1.85 and No. 2 at $1.25 to $1.35. In foreign rags, dark cottons are rather strong, and quotable at $1.65 to $1.70. While only a few mills are paying $1.70 per 100 pounds, the situation abroad points upward, as dealers find it difficult to obtain any quantity to sell at $1.65.

Frank Floyd Discusses Association Work

As scheduled, Frank Floyd, secretary of the National Paper Trade Association, was guest-speaker at the luncheon meeting of the Fine Paper Division of the New England Paper Merchants' Association at the Chamber of Commerce, Wednesday, July 11. Mr. Floyd discussed association work. Matthew O. Byrne, president of the New England Paper Merchants' Association, presided, assisted by Arthur E. Hamm, vice-president. There was a good attendance.

News of the Trade

Carter, Rice & Co. have issued a folder, "Showing how the paper manufacturer helps the printer in selling everyday printing," the third in a series of six. The folder contains miniatures of the current *Saturday Evening Post* advertisements of the Hammermill Paper Company, the Strathmore Paper Company and the American Writing Paper Company. These papers are stocked in large quantities by Carter, Rice & Co. A part of the outside of the folder shows a picture of the office building of the company.

The International Paper Company has annunced the appointment of John Carter & Co. as distributors of Adirondack Bond and Adirondack Ledger. Both of these lines will be stocked at Boston and Hartford. John Carter & Co. have become the New England distributors of the new announcement papers of Albion Laid, manufactured by the American Writing Paper Company.

William B. Stevenson, president of Storrs & Bement Company, is enjoying a month's vacation at Kearsage, N. H.

J. L. Hamm, of Arthur E. Hamm & Sons, has gone on a business trip to Vermont and New York State. Traveling by motor he writes that some of the roads are still unrepaired after the flood. The State of Vermont has cut down on the amount of printing.

Colonel Edgar Smalley, managing director of Edwin Butterworth Company, Ltd., Manchester, England, rag and paper stock dealers, sailed for England Saturday, July 14, on the *Samaria*, after a month's visit to this country. Charles H. Wood, president of E. Butterworth & Co., Inc., of this city, accompanied Colonel Smalley to the steamer.

Mrs. Sargent, wife of Horace B. Sargent, of E. Butterworth & Co., Inc., was injured in an automobile accident in Nashua, N. H., when an automobile in which she was riding turned over in coming down a hill. Mrs. Sargent was able to return to Boston.

Mr. Preble, of the Diamond Mills Paper Company, was recently in town. Mr. Preble is well known in Boston, having been the paper purchasing agent for a number of years for Ginn & Co. He has been representing the Diamond Mills Paper Company in New York State, but his territory has been extended to include Boston.

John L. Theriault, representative of the Samson Cordage Works, called on the trade last week.

James R. Dearden, purchasing agent for the Strathmore Paper Company, who has been on his honeymoon, has returned to Mittineague, Mass.

Tileston & Hollingsworth Company are sending out halftone engravings of Herbert C. Hoover and Alfred E. Smith. The engravings are 120 screen, printed in dull black ink on dampened Milton Text, white, 26x40—80.

The S. D. Warren Company is installing considerable new machinery at Cumberland Mills, Maine, including six Seybold Mill Trimmers.

Fort Miller Pulp Mill Resumes

[FROM OUR REGULAR CORRESPONDENT]

FORT MILLER, N. Y., July 17, 1928.—The Fort Miller Pulp and Paper Company resumed operations this week in the pulp mill after a total suspension of work for more than a year. Operations at the pulp mill are at present confined to one day shift. Whether a night shift will be placed at work has not yet been decided. The Fort Miller Pulp and Paper Company is the only industry in Fort Miller and the resumption of work in the pulp mill, even on a small scale, was greeted with enthusiasm by residents of the community.

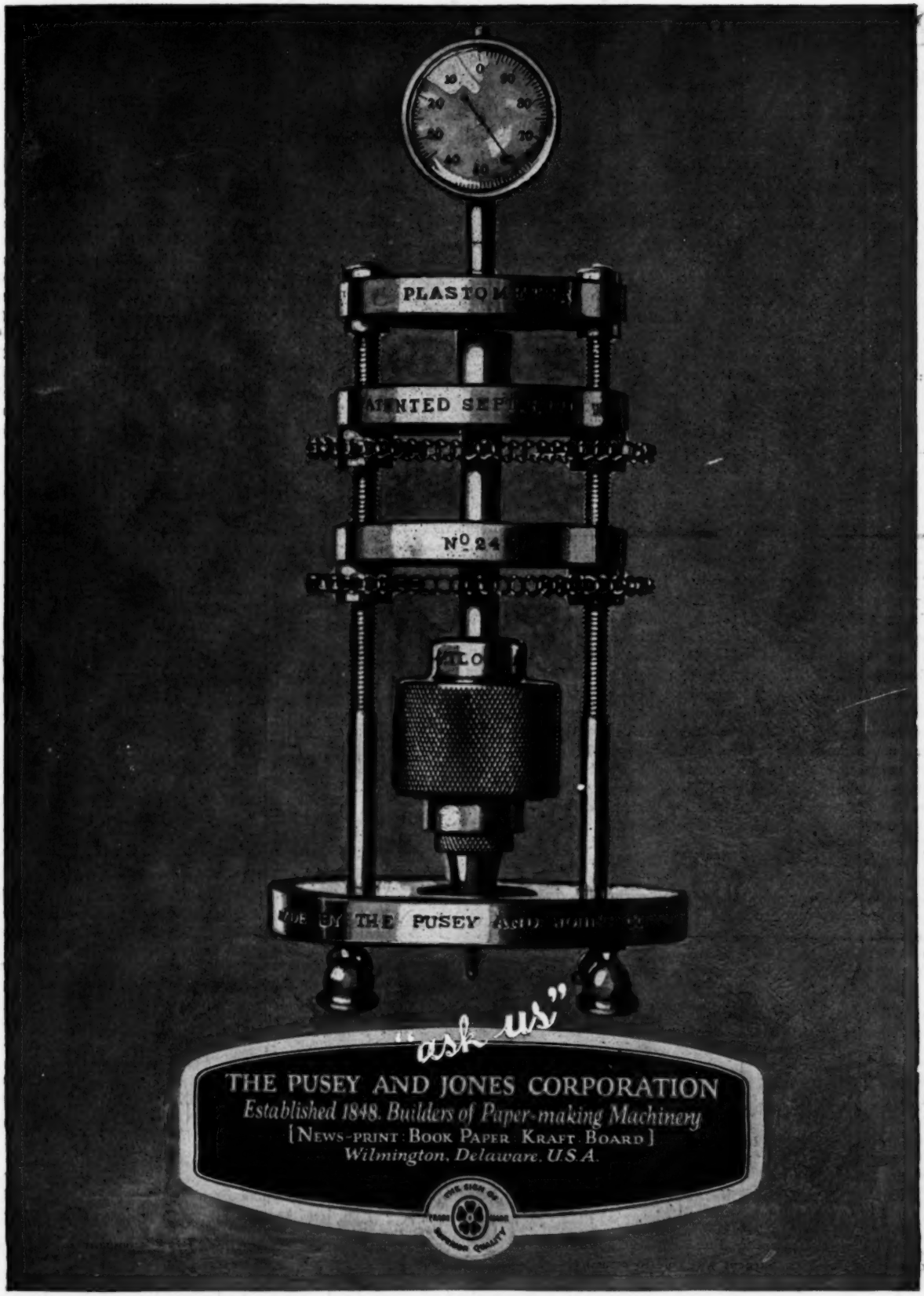
The paper mill of the company was completely destroyed by fire more than a year ago and while the pulp mill escaped damage operations were suspended immediately following the fire and the plant has been completely idle since. Many rumors have been current from time to time regarding the plans of the company and it is known that one of the large power corporations has made an offer for the property which includes valuable water power rights on the Hudson River.

Whether the start of operations in the pulp mill this week indicates a change in the plans of the company are not definitely known. Miss A. M. Thorpe, treasurer and principal owner of the company, however, stated that the immediate reconstruction of the destroyed paper mill is not planned by the company.

The pulp mill of the Fort Miller Company with its present equipment is practically new, having been erected only a few years ago to replace a mill destroyed by fire. It is understood that the production of the mill will be sold to other paper mills in the Upper Hudson Valley.

Big Demand For Boilers In Paper Industry

ERIE, Pa., July 9, 1928.—The Erie City Iron Works, manufacturers of steam power equipment, report a strong demand for boilers from the paper industry. A recent order of seven boilers, including two Erie City 807 hp., three drums for 250 pounds W. P., and five Erie City 456 hp., two drum boilers for 250 pounds W. P., to utilize waste heat, and an order for three 565 hp. Erie City three drum boilers with economizers for 325 pounds W. P., comes from the Bergstrom Paper Company, of Neenah, Wis.



The Plastometer—an exclusive Puseyjones product—the accepted standard for measuring the density or hardness of mechanical rubber, such as those for covering press rolls.

Copyrighted 1927 by The Pusey and Jones Corporation, Wilmington, Delaware, U. S. A.

Demand for Paper Seasonable in Philadelphia

With Exception of Summer Specialties, Trading Continues Light—Fine Paper Manufacturers and News Print Industry Should Benefit by Large Volume of Supplies Which Will be Needed For Forthcoming Political Campaign—Kraft Situation Clears

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., July 16, 1928.—While the trade is involved in the clearing of semi-annual accounts, dealers are marking time, with the usual summer trend in demand. There is a hand to mouth market for all divisions of the industry except the few specialties that are typically summer time commodities. Mills are slowing down operations pending the repairing or renovating of mechanical units while stocks on hand are being cleared up for restocking for the Fall. Preparation for the coming Fall political campaign, with the educational propaganda that will be circulated from now on until the election, is believed to be proving beneficial to the fine paper market. As the printers who feature this class of printed matter become more active, the fine paper distributors are called on for larger supplies adapted for the mailing of circulars, flyers, or other announcements, as well as news print, which the daily press will consume as the news of the campaign spreads into larger pages and brings broader circulation. All grades of printed papers hold fairly well to the prices of spring time, although demand is curtailed. Spot business in the wholesale division for book grades and coated papers is well maintained.

The hot weather of the past month has been beneficial to the distributors of sanitary products and summer paper wares, such as cups, towels, soda and ice cream fountain specialties. Since the early days of July the volume moving from warehouses has vastly increased after a rather draggy spring demand. Food wraps, grease proof papers, and glassines have all been among the seasonally active group of products. Since the kraft situation has been clearing, dealers have been informed by the mills that the low prices have been withdrawn and the values are to be raised for future orders. The promised warfare on krafts has not materialized and for the balance of the season steady quotations are expected. Summer demand for the standard grades of coarse papers is moderate, as might be expected with the duller times and the hesitancy of industry generally throughout the dog days. Board manufacturers are beginning to experience a broadening of operations, as preparation for the coming Fall demand is under way. Straw boards, while steady, are quieter. Manufacturers of cheaper grades of building boards are fairly well filled with orders and are on full time operation.

The paper stock market remains under the inertia of the past few weeks, with very little demand for any of the grades and a stringency in supplies of the writing, book and finer grades of raw materials that have been urgently needed by the mills for several months. Rags consumed in the manufacture of roofings and fiber boards are in urgent demand. There is a premium on spot roofing supplies. The manufacturers of fiber boards and other building boards are seeking large quantities of the rags needed for this class of paper goods. Prices on a few of the grades have advanced but the list generally is steady. Wiping rags are not as active as they have been the past six months.

Schuylkill Paper Co. Has Outing

With bright July sun beaming on the group of happy associates of the Schuylkill Paper Company, and adding to the zest of the outdoor program of entertainments, the first outing of the company was staged last Saturday at the home of Frederic S. Balch, in Springfield, just outside Philadelphia. With fifteen associates of the firm joining in the fellowship of the many diversions, the afternoon was given over to prize winning contests and to hospitality of the dining table. The group journeyed by auto to Springfield and after a refreshing luncheon adjourned to the lawn and there entered into the liveliness of the quoit contest, ice cream eating competition and into the swimming match staged in the Springfield Pool. The prowess of the fair members of the staff won for Miss Minerva Persky the quoit prize, a hand bag; for Miss Bertha Raymond the swimming award, a silk umbrella and for the men's novelty event—the ice cream eating contest, the prize, a box of cigars, went to the champion, Walter Shiber, who is head of the specialty and twine department. In the evening the group enjoyed a delightful lawn dinner served on the spacious green of the Balch home and then joined in the singing and dancing program which lasted until late in the evening. James Andrews, who is associated with Mr. Balch in the Schuylkill Paper Company, joined with his partner in dispensing hospitality.

Direct Mail Convention Exhibits Planned

More than 130 exhibitors have already acquired space for the big exhibition to be held in conjunction with the coming International Convention of the Direct Mail Advertisers Association. The International Convention will be held from October 17 to 19 and already 2500 have signified their intention of attending. The exhibits will be held at the Commercial Museum, 34th and Spruce streets. J. Linton Engle has been appointed chairman of arrangements to succeed Norbert A. Considine, head of the Paper House of Pennsylvania, who was obliged to relinquish the chairmanship owing to serious illness, and who is now abroad recuperating. The headquarters of the convention are located in the Benjamin Franklin Hotel. Many paper manufacturers, envelope makers and allied industries have acquired space.

Red Lion Carton Co. To Expand

Plans for the extension of its manufacturing facilities are under way in the plant of the Red Lion Carton Company, of Red Lion, Pa., manufacturers of egg cartons. Additional machinery is being installed to handle the increased business in the patented egg filling cartons produced in the factory. The firm is planning to erect its own plant and to triple its production.

Edwin Garrett Installs Modern Machines

Edwin Garrett, who is a descendant of the pioneer paper making Garrett family, of Eastern Pennsylvania and is engaged in the manufacture of tissues in Morgan, Pa., has just installed modern mechanical units for the production of a complete line of tissues. The mills are specializing on light weight tissues in bogus wrappings for the furniture trade and high grade wrapping tissues for a variety of uses.

Tissues Offered By Washburn Paper Co.

T. O. Johnson, who represents the Washburn Paper Company of Hinsdale, New Hampshire, has been offering an attractive assortment of towels and sanitary products made by his firm in his rounds of the Quaker City distribution trade. There was also shown a wide range in tissue wrappings for many purposes made by these mills.

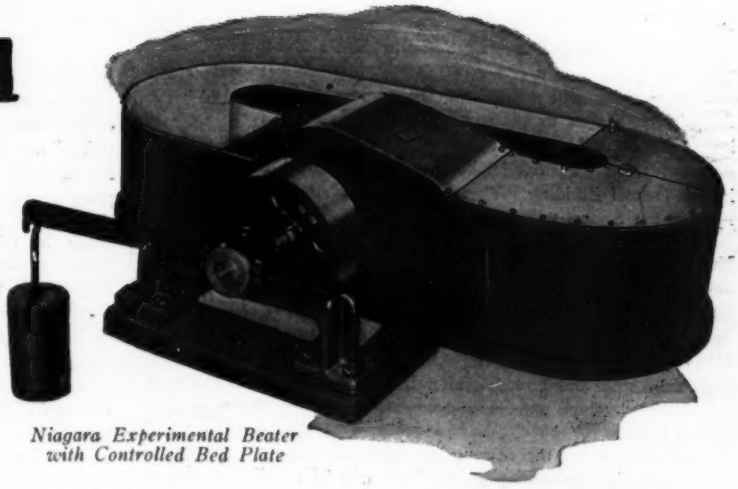
Graphic Arts Museum For Franklin Memorial

Paper men will join with the allied industries in paying tribute to the memory of Benjamin Franklin, in the proposed $7,000,000 museum which is to be erected on the Parkway, according to an announcement made public at the meeting of the Poor Richard Club held in the past week. The project is being sponsored by the Poor Richard Club, the local advertising men's organization and the

the density or hardness of mechanical rubber, such as those for covering press rolls.

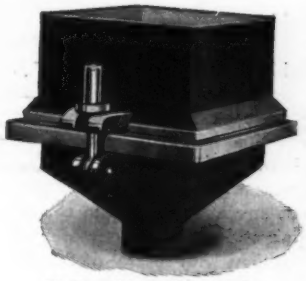
Copyrighted 1927 by The Pusey and Jones Corporation, Wilmington, Delaware, U. S. A.

A PROFITABLE Investment for Any Mill



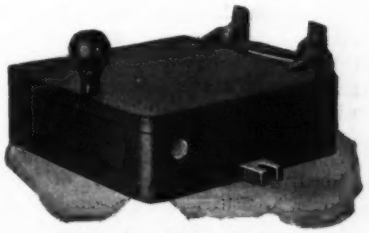
Niagara Experimental Beater with Controlled Bed Plate

Elimination of guessing with its consequent wasted effort, time and materials today is sought by every mill that wants to lower operation costs. As a result Valley Laboratory Equipment is today the accepted means for control. It is an additional aid in the hands of the operator—as necessary as workmen's tools. Valley Laboratory Equipment facilitates quick testing of raw materials that enter into the mill's product. It accurately helps solve paper-making problems.



Valley Sheet Mould for Forming Test Sheets

Developed in our cooperative laboratories over a period of six years, every piece of Valley Laboratory Equipment is original testing apparatus. That's why paper mills, research laboratories, universities and technical schools all find Valley Laboratory Equipment meets their particular needs. The experience of the 92 mills who are using Valley Laboratory Equipment may be of interest to you. Write today for free Laboratory Equipment Booklet.



Valley Hot Plate for Drying Test Sheets

VALLEY IRON WORKS CO.

Machinery for Paper and Pulp Mills

APPLETON WISCONSIN

Valley Hydraulic Press for Removing Water from Sheets

New York Office: 350 Madison Avenue

Western Manufacturing & Sales Division: Smith & Valley Iron Works Co., Portland, Oregon

Franklin Institute of the State of Pennsylvania, who are united in working for the giant memorial to the Patron Saint of Printerdom. The original plans were conceived by Morton Gibbons-Neff, formerly connected with the Dill and Collins Company, paper manufacturers, and son-in-law of Grellett Collins, head of the firm, two years ago when he was president of the Poor Richard Club. More than $3,000,000 has already been subscribed to the fund for the memorial and the remainder of the money will be raised by popular subscription.

Gift Paper Manufacturers To Exhibit

Paper manufacturers interested in gift packet and social stationery lines will exhibit at the two coming Gift and Art Association Shows to be held in Philadelphia and New York in late summer and early September, according to announcements sent out from the Philadelphia headquarters of the organization in the Drexel Building. The first of the National Gift and Art Association Shows will be held here at the Adelphia Hotel, from August 27 to September 1. The second show will be staged in New York at the Hotel Imperial from September 3 to 8. These shows will be devoted to the semi annual display of gift wares and to buyer conferences with the retailers and distributors. Among the paper exhibits will be gift papeteries, stationery portfolios, announcements, novelty boxings of papeteries, imported papers in bulk and boxed, and a line of Japanese tiling tissues and fancy envelope and announcements with bulk stocks and imported linings for envelopes and fancy wrapping papers adapted for gift wraps for the coming holidays. A large assortment of paper novelties made into gift articles will be on display among the various firms in the exhibit.

John J. Costello Conducts Own Business

With the dissolution of John J. Costello & Co., conducting a rag and wiping rag wholesale stock business on the water front, the company title has been changed to John J. Costello. The dissolution followed the death of Alvin J. Bloch, who was associated in the firm with Mr. Costello. The rag and wiping rag business will be continued by the surviving partner at 48 North Front street. Mr. Costello conducts an importing and brokerage business. In a recent tour of the rag centers of Europe he made connections with several of the larger foreign exporters to handle their products in this country.

Walter Hunter In Wholesale Paper Business

Specializing in papers consumed by the stationery trade, Walter Hunter is now engaged on his own account in the wholesale distribution of a line of papeteries, tissues, flat papers and other grades at 48 North Front street. He continues to be affiliated with the W. H. Dobbins Company, and represents that concern, featuring similar lines in the city, Northern New Jersey and Pennsylvania territories. The business is now confined to the second floor, where the offices of the Dobbins Company and the Hunter headquarters are located. W. H. Dobbins will continue to cover New Jersey, Delaware, Maryland and Virginia.

Herbert T. Brock Passes

Philadelphia associates of the late Herbert T. Brock, who were linked with him in the early days of his connection with the local paper stock industry, were grieved to learn of his death resulting from an accident. Mr. Brock was until recently connected with the New York paper stock house of E. A. Stone & Co., and covered the local territory and adjacent states for his firm. He had been on a trip to Delaware and was returning to New York, making a stop over in Philadelphia, when he was struck by an automobile and seriously injured. He was taken to a local hospital and had been confined there for several days before pneumonia set in. The complication of the lung disease with his injuries caused his death. He was 47 years of age. Previous to joining the New York firm he was associated with the Philadelphia stock house of Daniel I. Murphy and the Penn Paper and Stock Company, as manager of the New York branch. He was well known in the industry and had a wide circle of friends in its ranks.

A. M. Sinclair Not Connected With Raubsville Mills

In reference to the report of the bankruptcy of the Raubsville Paper Mills, which appeared on page 34 of the July 12th issue of PAPER TRADE JOURNAL, Alexander M. Sinclair, the former treasurer, states that he has not been connected with the organization since December, 1927.

B. B. Taggart Inspects Plants

[FROM OUR REGULAR CORRESPONDENT]

OSWEGO, N. Y., July 17, 1928.—B. B. Taggart, vice president of the new Taggart Corporation chartered recently with capitalization of $250,000,000 to take over all Taggart properties in Northern New York, paid a visit of inspection Monday to the plant of the Taggart-Oswego Paper and Bag Corporation, one of the newest units of the Carlisle group of mills. Mr. Taggart made the trip to Oswego aboard his motor cruiser, "The Harpoon," making the trip across the lake from the St. Lawrence River, where he has a cottage.

After inspecting the local plant Mr. Taggart expressed himself as highly pleased not only with the increased bag production but also the progress being made on the large new addition to the Oswego mill. He stated that the production of the Taggart-Oswego mill has now reached 200,000 bags daily and this output will be further increased with completion of the addition now under construction on the east side of the present bag factory.

He said there is a widespread demand for the multi-wall bags being produced here. During the month of June, he said, the Oswego plant was able to turn out more than 4,000,000 kraft sacks. He considered this as a big output when the fact is considered of newness of the paper machine and other equipment and the fact that local labor had to enter upon a new class of work for this city.

J. S. Chamberlain, of New York, accompanied Mr. Taggart to this city. On the return trip to the Thousand Islands the Taggart launch carried David Fleischman, manager of the Taggart-Oswego plant, and Mrs. Fleischman, who will be guests at the Taggart cottage.

Hammermill To Build Mill on Coast

[FROM OUR REGULAR CORRESPONDENT]

ERIE, Pa., July 16, 1928.—The Hammermill Paper Company announced last week that for the purpose of erecting a new paper mill on the Pacific Coast, it has entered into a business enterprise with Isadore Zellerbach, Edward M. Mills, J. D. Zellerbach, Harold L. Zellerbach, M. M. Baruh, of San Francisco; J. Y. Baruh, of Los Angeles; and John C. Higgins of New York City.

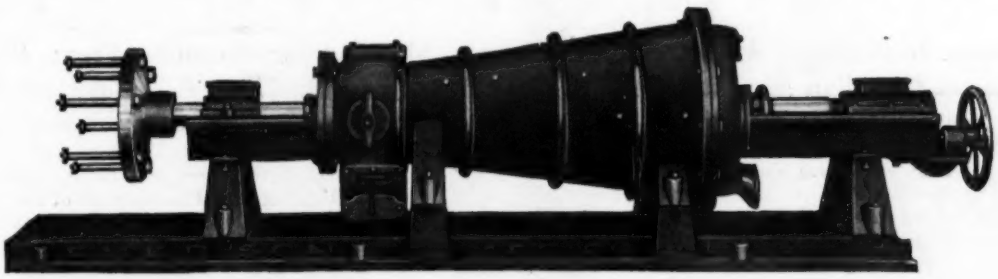
The proposed mill will have an initial capacity of 50 tons per day and will be designed for the making of bond and writing papers and specialties. It will be erected adjacent to the pulp mill of the Gray's Harbor Pulp Company now under consturction at Hoquiam, Wash. This location will place it favorably in the midst of the last extensive stands of timber suited for pulpwood uses in this country.

The production and sale of the paper from the new mill will be under Hammermill management.

Sponsors Buyers' Week at Portland

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., July 6, 1928.—W. D. McWaters, manager of the Portland branch of the Zellerbach Paper Company, is a member of the committee of jobbers and manufacturers who are sponsoring Buyers' Week in the city for August 6-11. It is expected that 2,000 merchants at least will be registered for this event from out of town. Free transportation is offered each visitor who makes a purchase of $500 worth of goods or more.

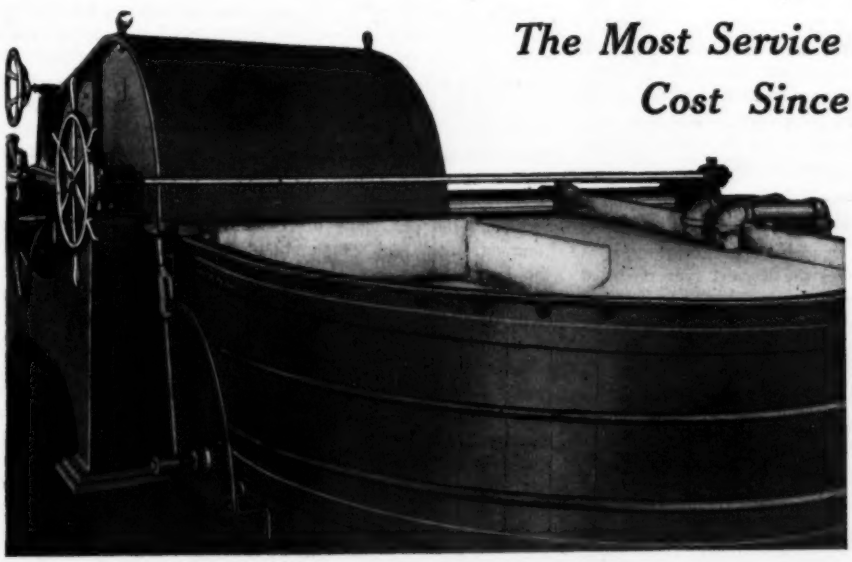


EMERSON REFINERS

Some Special Features

1. Sliding Brass Gate, permitting removal of all foreign substances while refiner continues in operation.
2. Means of quickly maintaining alignment of plug and shell.
3. Patented Flexible Coupling allows endwise movement of plug without changing position of motor. Alignment of plug shaft with motor shaft not necessary.

EMERSONS ARE BUILT TO DO YOUR WORK



The Most Service for the Least Cost Since 1888

EMERSON BEATERS

Used in connection with Emerson Refiners, results in perfect "team work" all through this most important stage of paper production. Emerson Beaters are built to care for your specific requirements. When you have a roll or plug to build, get in touch with Emerson first for prompt quotation and quick service.

When You Need a Roll or Plug Let Emerson Quote You

EMERSON MFG. CO., LAWRENCE, MASS.

Ontario Paper Mills Operating Near Capacity

Board Plants Increasingly Active, Due to Persistent Demand for Supplies From Paper Box Industry—Canadian Manufacturers of Kraft Paper Continue Busy — Quotations Hold Steady Despite Decline in United States—Light Weight Papers In Request

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, July 16, 1928.—With all wholesale paper prices holding firm, sales keeping up well and manufacturing of nearly all lines quite active, the paper industry in Ontario is in a satisfactory condition. One leading Toronto wholesaler stated that he had had the best June from a sales standpoint since the many years he had been in business and that July was shaping up well. So far the holiday season has had very little effect on business and all paper lines are in active demand. The printing and lithographic trades are busy and are making good requisitions for paper. Books, bonds, writings, and ledgers, are selling well and the paper converting trade is using more stock than for months. Envelope manufacturers are busy and activity among the manufacturing stationers is reflecting better business conditions generally throughout the province. The Canadian National Exhibition is approaching and that is always a huge consumer of paper and printing. The coarse paper section is not as busy as it might be but there has been some improvement of late both in wrappings and paper bags, while light weight paper manufacturers and jobbers report a well sustained demand for their products. Tissues, toilets, crepes, and specialty lines, are in keen demand, as they have been all spring and summer.

The paper box industry is using a lot of board and this is reflected in increasing activity among the board mills which are operating close to capacity. Kraft mills are busy and while it cannot be said that the price reductions in this line in the United States will have any unfavorable effect on the Canadian made product, still there is a feeling that such may eventually be the case. All along the kraft market has been a very strong one and has been one of the brightest spots in the Canadian paper market. It is understood that some of the paper companies in the Southern States have cut quotations all the way from $3 to $10 per ton. Just how this price reduction will affect Canadian producers of kraft paper and sulphate pulp remains to be seen. Canadian paper prices are not necessarily dictated by prices in the United States, although they are apt to move up or down in sympathy with price trends there.

Dryden's Big Production of Kraft

Production of kraft paper by the Dryden Paper Company, with mill at Dryden, Ont., during May, was the highest ever recorded by the company. In that month the concern had begun to increase its output with the idea of laying aside a stock that would be available as soon as operations begun for the making of the paper into bags by the Bates Valve Bag Company. This work is expected to begin shortly and this new source will require a good many thousand tons of paper additional to be produced. The western markets are reported to be the best in the company's history, in their demand for the kraft that Dryden produces, with a fair demand also for sulphate pulp, of which a surplus is produced beyond what is required for the paper mill.

New Paper Company Formed in West

According to word from Vancouver, B. C., a first mortgage 6½ per cent gold bond issue, amounting to $1,500,000, marks the official announcement of the formation of the Vancouver Kraft Company, incorporated under the laws of British Columbia and formed to acquire, operate and develop properties of the Howe Sound Pulp and Paper Company at Port Mellon, B. C., and the Vancouver Kraft Mills, Ltd. The new company plans to increase the capacity of the mill, the total production of which will be sold to the Columbia River Paper Mills and the Bates Valve Bag Corporation. Active control and management of the company will be in the hands of F. W. Leadbetter, one of the best known paper manufacturers on the Pacific Coast.

Toronto Firm's Pulpwood Operations

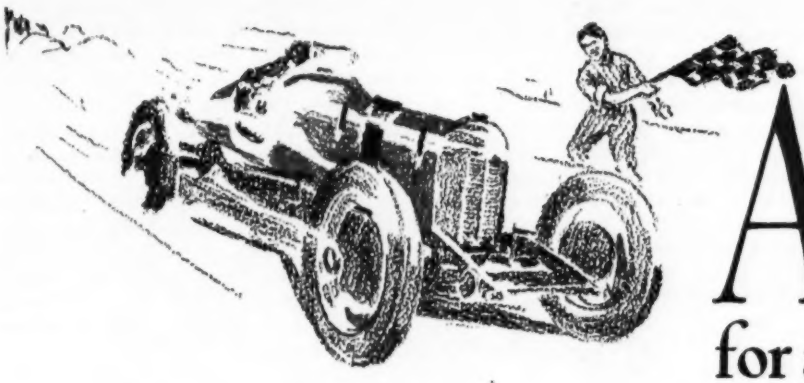
The Thompson and Hyland Lumber Company, Toronto, are handling 90,000 cords of pulpwood this season and their machines are rossing 25,000 cords. The company is shipping 15,000 cords of poplar from the North Shore and Fort William to the United States by boat and they have contracted for 40,000 cords of poplar for next year. The demand for poplar pulpwood from the other side is increasing materially. Pulpwood prices are ten per cent lower on contract this season than last and deliveries have not been so large owing to reduced operations in many sections. The peeling season, which will end about the middle of August, has been interrupted considerably by heavy rains and the prevalence of black flies in the North Country.

New Firstbrook Financing

In connection with the recent fusion of the interests of Firstbrook Bros., Ltd., Canada Cartons, Ltd., and the Rudd Paper Box Company, Ltd., new financing in the form of a $500,000 6 per cent bond issue and a $500,000 7 per cent preferred stock issue will be undertaken by a Toronto financial house. The new company will be known as Firstbrook Boxes, Ltd. It is acquiring all the issued capital and will be the owners of the business, undertakings and assets of the old companies. The company has also secured a valuable manufacturing site of ten acres in Mount Dennis, near Toronto. A large factory will be erected on this property in which the various activities of the predecessor companies will be carried out. Until completion of this new building production will continue in the existing plants. Firstbrook Boxes, Ltd., will be the largest Canadian corporation devoted to the combined manufacture of wooden boxes, corrugated paper shipping units and paper cartons. The capitalization of the new company will, it is stated, consist of $500,000 6 per cent first mortgage twenty-year gold bonds, $500,000 7 per cent cumulative convertible, $100 par value preference shares and 90,000 shares of common stock. On completion of the pending financing, 5,000 of the 10,000 preference shares and 60,000 of the 90,000 common shares will be outstanding. The coupon bonds will be denominations of $1,000, $500, and $100, and redeemable before maturity at the option of the company on any interest date at 60 days notice. Provision is to be made for an annual sinking fund, estimated sufficient to retire 80 per cent of the issue by maturity in 1948. The average net earnings of the company over the last three years were $130,393, quivalent to 4.34 times bond interest, while net earnings last year equaled five times these requirements. A strong position behind the bond issue is indicated in the combined value of fixed assets which exceed $1,286,500—equivalent to $2,573 for each $1,000. Purchasers of preferred stock will receive a bonus of 30 per cent of common stock.

Forestry Experts to Study Problems

Professor J. H. White, of the staff of the faculty of forestry, University of Toronto, has gone to Europe where he will spend the summer in studying European methods of forestry education. He will visit Great Britain, France, Germany, Switzerland and Denmark, but most of his time will be spent in Norway, Sweden and Finland, since the forest conditions in these three countries



A Good Start for a Good Finish

Much of Paper Finish Starts with the Felt

Good stock in the stuff chests,—skill in the beaters and jordans,—but the first minute on the machine makes or mars the finish . . .

Suction box and heavy filler are handicaps that must be hurdled by a clean, fine-surfaced sheet. A good wet felt can carry the sheet through these hazards without blemish. But,—it must be *designed* for its specific job. *That's why Albany Wet Felts are Tailor-Made"**.

*Every order for an Albany Felt is a "special order". Every Albany Felt is "tailor-made" to fit specified conditions on the definite machine and position for which it is individually designed.

Albany designers consider every condition on the machine for which the felt is intended. Then they plan wool and yarn and the weave to meet these conditions.

The resultant "Tailor-Made" Wet Felt *must* carry through a good sheet,—*it's built that way.*

For a perfect finish, start with Albany "Tailor-Made" Felts, designed for the machines and conditions with which they work.

ALBANY FELTS

TAILOR-MADE BY ALBANY FELT COMPANY, ALBANY, NEW YORK

AFAFAFAFAFAFAFAFAFAFAFAFAFAFAFAF

are more comparable with those in Canada. Professor T. W. Dwight, also of the staff of the same faculty, is continuing a highly important investigation in Northern Ontario, on which he has been engaged for several years. This consists in a close and intensive examination of the rate of growth and yield in young forests of various ages on the old "burns" in an effort to determine to what extent the Province can depend on such young forests for future supplies of pulpwood when the virgin supplies are exhausted. R. C. Hosie, a third member of the staff of the faculty, is continuing his study of forest types in Northern Ontario. He is endeavoring to work out some simple method of classifying the different forest conditions, so as to obtain some ready index to their present and future wood producing capacity.

Paper Standardization Makes Progress

A distinct step in advance was made in Toronto on July 10, when a meeting of printers, lithographers, paper wholesalers and paper manufacturers was held to reach an agreement for the standardization of weights and sizes of papers to be turned out by the mills and handled by the wholesalers for the printing and lithographing trades. The principle of the proposition was adopted by the representatives of the industries present from Quebec and Ontario and it was agreed that a committee should work out some further details and prepare a report to be submitted at a further meeting to be held in Montreal in two weeks' time. The project aims at the elimination of a lot of sizes now being handled by many wholesale houses and the standardization of other lines as to both weights and sizes. At the conclusion of the deliberations of the gathering the delegates were taken to the Lambton Club for golf and dinner as the guests of A. L. Lewis, president of the Toronto Typothetae.

Notes and Jottings of the Trade

Rapid progress is being made by the Spruce Falls Company on its development at Smoky Falls on the Mattagami River in Northern Ontario and the initial installation of 56,250 horse power is expected to be ready some time next month, when the power will be transmitted to the company's pulp and paper mills at Kapuskasing. The *New York Times* is interested in the project.

The Howard Smith Paper Company's new machine at the Cornwall, Ont., mill, went into production a few days ago on sulphite bonds, litho and offset papers and is said to be working smoothly. This machine is known as "No. 9" and is the ninth unit to be placed in commission since the company started operations.

George A. Davidson, sales manager of the Howard Smith Paper Mills, Ltd., Montreal, was a visitor to the Toronto office of the company a few days ago.

Col. C. H. L. Jones, formerly general manager of the Spanish River Pulp and Paper Mills, Ltd., and now connected with the pulp and paper ventures of the Royal Securities Corporation at Liverpool, N. S., was a recent business visitor in Toronto.

Some improvements are being made to the Georgetown Division of Provincial Paper Sales, Ltd., near Toronto, where No. 2 machine room is being enlarged and a new roof put on. Considerable other construction and repair work is being done around the plant.

The Reg N. Boxer Company, Ltd., New Toronto, once a unit of the combined Canadian Wallpaper Manufacturers, have bought four acres of land adjacent to 7th avenue. This area, which ensures access to the railway, will not be built upon at once, but will be retained for future expansion of the company's plant.

C. J. Zavitz, Deputy Minister of Forestry, will represent the Province of Ontario at the Imperial Forestry Conference which will be held in Australia and New Zealand from August 20 to October 1, this year. Mr. Zavitz will sail from Vancouver on July 25 and will read a paper on the work of forestry in Ontario at the Conference.

Employees of Provincial Paper, Ltd., Port Arthur, Ont., held their annual picnic at Kakabeka Falls a few days ago. Attendance of employees and their families numbered over 300 and besides those who traveled in automobiles a special train was used on the C. N. R.

Up until May last the Abitibi mill of the Abitibi Power and Paper Company at Iroquois Falls, Ont., was leading the larger mills in safety records but the Sturgeon Falls mill has now moved ahead, with a total of 10.7 days lost per thousand hours worked.

Annually for the past twenty years Fred W. Halls, president of the Fred W. Halls Paper Co., Ltd., Toronto, has entertained representatives of the wholesale paper and printing trades to a corned beef and cabbage dinner at his home, 68 Indian Grove, that city. The event was staged this year with the usual success and to the delight of a large number of guests, the fun extending from 12 noon till 12 p. m., and Art Allen, of Paper Sales, Ltd., acting as chief cook, with T. J. Allen as assistant.

C. Howard Smith, president of the Howard Smith Paper Mills, and Harold Crabtree, of the same company, were business visitors in Toronto a few days ago.

Bag and Paper Jobbers To Hold Outing

The Metropolitan Bag and Paper Jobbers' Association, Inc., will hold its eleventh Annual Summer Outing on Thursday, August 9, 1928. This year the place chosen is the Narragansett Inn at Lindenhurst, Long Island. The members, their guests and friends will gather at Borough Hall, Brooklyn, New York at 9 a. m. of that day where pullman busses will await.

Upon arrival, breakfast will be ready. Subsequently numerous activities have been arranged for the pleasure and enjoyment of all, each in accordance with his likes. The final event will be a shore dinner.

This outing is one of the annual functions of the Metropolitan Bag and Paper Jobbers' Association. It is run, not for profit, but for the purpose of affording the paper industry in all its branches a splendid opportunity of getting together and spending a wholesome day where old friendships may be strengthened and renewed and many new ones made. The association feels that this activity adds in no small measure to the general purpose of elevating the standards in the industry. It therefore anticipates the full support of the trade in making this event a success.

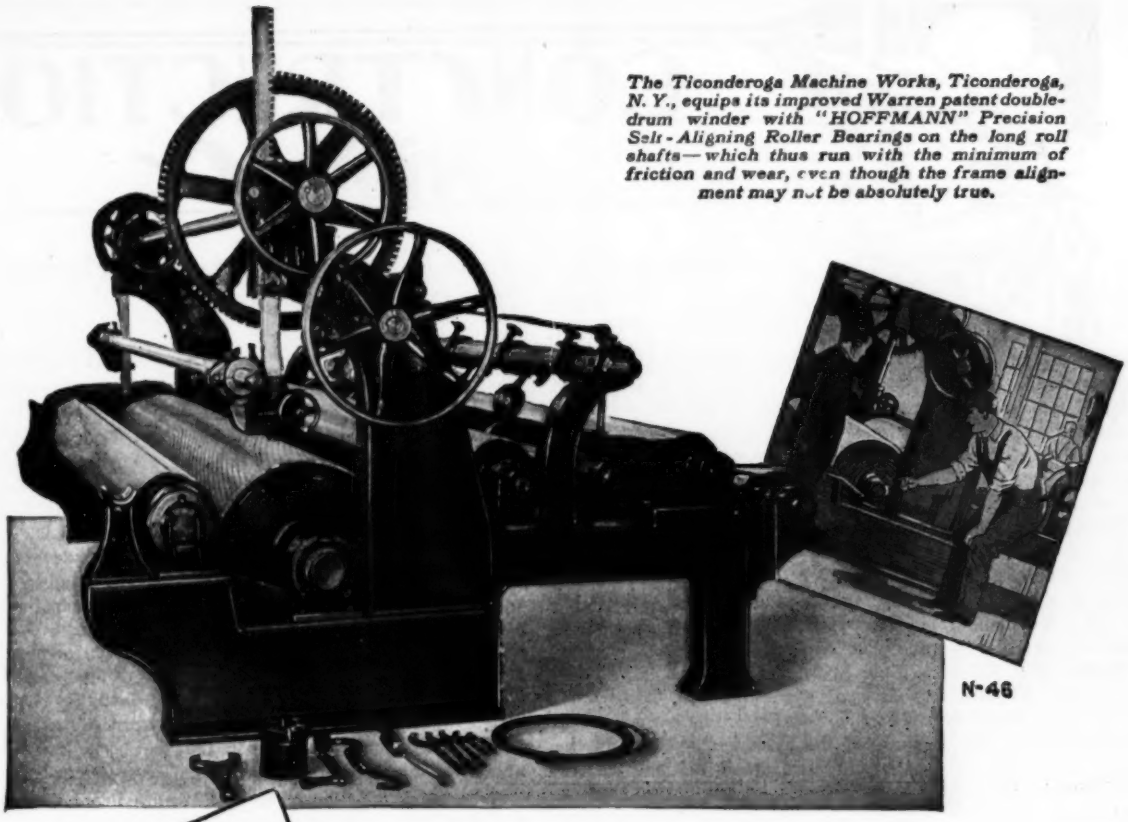
The association this year has departed from its usual custom of printing a journal and soliciting advertisements therefor, and wishes to assure those who have so kindly and generously contributed to that journal in the past that in eliminating the journal for this outing they are doing so out of consideration for them. Tickets are $8.00 each and include everything. Tickets or any other information concerning this affair, may be obtained from Nelson Berger, Forbes Paper Company, 32 Laight Street, New York City—telephone Walker 3875.

Four New Paper Mills for Alabama

[FROM OUR REGULAR CORRESPONDENT]

MONTGOMERY, Ala., July 16, 1928.—Alabama is to have four paper mills in which will be invested about $20,000,000 for the manufacture of wrapping papers and bags. In addition to the $5,000,000 plant which will be constructed in Mobile by the International Paper Corporation, and the $5,000,000 plant now being built in Tuscaloosa by the E. Z. Opener Bag Company, two other corporations with a capital of $10,000,000 have qualified to begin the construction of plants in Alabama, according to information obtained at the office of John Brandon, Secretary of State.

The Bemis Brothers Bag Company will construct a $5,000,000 paper mill at Talladega, while the Gulf States Paper Corporation of New Orleans has been organized with a capital of $2,500,000 for the construction of another paper mill at Tuscaloosa.



The Ticonderoga Machine Works, Ticonderoga, N. Y., equips its improved Warren patent double-drum winder with "HOFFMANN" Precision Self-Aligning Roller Bearings on the long roll shafts—which thus run with the minimum of friction and wear, even though the frame alignment may not be absolutely true.

N-46

THE "HOFFMANN" affords two very important factors not combined in any other bearing—speed-ability and load-ability. Speeds up to 20,000 R. P. M. are not prohibitive, with "HOFFMANNS". As to loads—whether steady or variable or shock—no bearing will carry them with greater ease and certainty, than the "HOFFMANN".

Catalog 904

NORMA-HOFFMANN BEARINGS CORPORATION

STAMFORD, CONN. - - - U.S.A.

"NORMA" PRECISION BALL BEARINGS

Built to Precision standards, in both open and closed types, for the average loads and all speeds with the maximum of reliability

NB-908

"HOFFMANN" PRECISION ROLLER BEARINGS

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Kalamazoo, Mich.—The Kalamazoo Paper Box Company, East Kalamazoo and Pitcher avenue, has completed plans for construction of new two-story reinforced-concrete plant unit, 50 x 100 feet, reported to cost about $45,000, with equipment, and will proceed with work at once. General contract has been let to the O. F. Miller Construction Company, Pratt Building.

Chicago, Ill.—The Associated Paper Company, 1529 North Halsted street, has preliminary plans under advisement for the construction of a new building at 1717-21 North Ashland avenue, to be used primarily for storage and distributing service, reported to cost about $55,000. It is understood that architect will be selected to prepare plans at early date.

Philadelphia, Pa.—The Fibre Board Products, Inc., San Francisco, Cal., a joint subsidiary of the Zellerbach Corporation and the Paraffine Companies, Inc., San Francisco, has concluded negotiations for the purchase of the plant and business of the Federal Container Company, 56th street and Paschall avenue, Philadelphia, and will consolidate with its organization. It is understood that new owner will continue operation of local plant, using as Eastern works, and will likely develop an expansion program.

Baltimore, Md.—The Southern Envelope Company, Inc., 2110 Barclay street, recently organized by William R. Gardner and associates, is said to be planning the early operation of local factory for the production of envelopes and other commercial paper products.

Big Stone Gap, Va.—The United States Leather Company, 17 Battery Place, New York, is reported to be planning the construction of a paper mill in connection with its local tannery, to be devoted to the production of coarse pulp and paper products for use in connection with its industry. As now projected, the mill will be one-story, 100 x 400 feet, and will be equipped for an initial capacity of about 20 tons of material per day. The cost is reported in excess of $350,000 with machinery.

Chester, Pa.—The Scott Paper Company has authorized an increase in capital from $2,500,000 to $15,000,000, a portion of proceeds to be used for general expansion in the business, including production and distribution.

St. Louis, Mo.—The Waxide Paper Company, Kansas City, Mo., has begun the construction of its proposed new local plant at Twentieth and Tracy Streets, to be one-story and basement, 95 x 275 feet, reported to cost close to $200,000, including equipment; the unit will be reinforced-concrete and brick. As recently reported general contract will be handled by the Fruin-Colnon Contracting Company, Merchants Laclede Building, St. Louis. **Leonard Haeger, 3844 Utah Place**, St. Louis, is architect. M. B. Berkley is president.

Flint, Mich.—Beecher, Peck & Lewis, Inc., 125 West Jefferson street, Detroit, wholesale paper dealer and distributor, has concluded negotiations for the acquisition of C. E. Brandt & Co., Flint, Mich., operating the same line of business with local warehouse and distributing plant. Last noted organization will be known in the future as the C. E. Brandt & Company Division of Beecher, Peck & Lewis, Inc. Purchasing company will carry out a general expansion program in the Flint district.

Mobile, Ala.—The International Paper Company, 100 East 42nd street, New York, is said to have concluded negotiations with the Mobile Chamber of Commerce, for the construction of a new paper mill in that city. The Chamber of Commerce, it is understood, has arranged financing in an amount of $100,000, to assure the project. The mill will be devoted to the production of kraft papers, consisting of a number of units, with boiler plant, machine shop and other mechanical structures, equipped for an output of about 175 tons of finished stock per day. It will give employment to close to 500 persons, and is reported to cost more than $3,500,000. The company has secured options on a large tract of timber lands for raw material supply, and is said to be arranging to purchase at least 200,000 acres for this purpose. The new mill will be built and operated under the direction of R. J. Cullen, vice-president.

Nekoosa, Wis.—The Nekoosa-Edwards Paper Company has awarded a general contract to the Lakeside Bridge and Steel Company, North Milwaukee, Wis., for structural steel framing for one of the new units to be built at its plant, in connection with general expansion program previously announced. The new building will be used primarily as a finishing room and superstructure will begin at once. E. P. Gleason is company engineer. J. E. Alexander is general manager.

Port Townsend, Wash.—The National Paper Products Company, 562 Battery street, San Francisco, Cal., an interest of the Zellerbach Company, has awarded a general building contract to Chris Kuppler Sons, Port Angeles, Wash., for the construction of a second unit at its new local mill. The equipment installation for kraft stock, and auxiliary equipment will begin at once, and completion is scheduled at early date. Estimated cost has not been announced. The company has also awarded a contract to James H. Coyne, Port Townsend, for installation of water supply lines and equipment for the two mill units. The Zellerbach Company, parent organization, has taken title to 250 acres of tidelands, including mill site. Barr & Cunningham, Spaulding Building, Portland, Ore., are consulting engineers.

Noblesville, Ind.—The Ball Brothers Company, manufacturer of jars and containers, with branch mill for the production of corrugated paper containers and boxes, has authorized rebuilding of portion of plant, destroyed by storm, July 4, with loss reported in excess of $25,000.

Fulton, N. Y.—The Sealright Corporation, South First street, manufacturer of paper containers and boxes, has awarded a general building contract to the Austin Company, Euclid avenue, Cleveland, Ohio, for its proposed new addition on State street, and will proceed with superstructure at once. The unit will be two-story, 100 x 115 feet, and is reported to cost close to $200,000, with equipment. The company is a subsidiary of the Oswego Falls Corporation, same address.

Sturgis, Mich.—The National Carbon Coated Paper Com-

Paper's Ancestor

Paper was used for kings only, in the days when the Nile's deposit of silt supported the world's greatest civilization. Skilled workmen, slaves, turned reeds into reading matter.

The average business man throws more paper into his waste basket in an average business day than a deified Pharaoh owned in his whole reign. And paper today is a better product than the best the Egyptian paper maker could boast.

Skilled men, choosing their own vocation and proud of it, meet today's paper needs with a product as good as it is plentiful.

HAMMERMILL PAPER CO.

ERIE, PA.

pany has authorized plans for the construction of a new plant on local site, to be two-story, reported to cost more than $60,000, with equipment, and it is understood will ask bids on general contract at an early date. Billingham & Cobb, Press Building, Kalamazoo, Mich., are architects in charge.

Buffalo, N. Y.—The duPont Cellophane Company, Inc., River Road, manufacturer of special glazed paper products, is said to be making ready for the immediate erection of its proposed new plant additions, including a three-story and one-story structure, with cost estimated upward of $200,000, with machinery. The duPont Engineering Company, duPont Building, Wilmington, Del., is engineer in charge.

East Liverpool, Ohio.—The R. A. Weinhardt Decalcomania Company has been organized by local interests to manufacture and deal in decalcomanias as used by the pottery industry for plate decorations, etc. Offices will be established at once in building of the East Liverpool Publishing Company, Washington street. The new organization, it is understood, will represent a German manufacturer of decalcomanias. Robert A. Weinhardt, formerly connected with Knowles, Taylor & Knowles, East Liverpool, is president.

Highland Park, N. J.—The John Waldron Company, 30 East 42nd street, New York manufacturer of paper mill machinery and parts, has awarded a general contract to the H. K. Ferguson Company, Euclid Avenue, Cleveland, Ohio, for a new addition to its plant on the River Road, Highland Park, near New Brunswick. It will be one-story, reported to cost close to $40,000, with equipment.

Mont Roland, Que.—The Roland Paper Company, Ltd., manufacturer of high-grade writing and book papers, with mills at Mont Roland and St. Jerome, is carrying out an expansion program at the last noted plant, to include the installation of a new paper-making machine to increase company output to a maximum of more than 8,250 tons of finished stock per year. Considerable other accessory machinery will be installed, and it is understood, improvements carried out in present unit. To provide in part for the expansion the company is arranging for the early sale of a bond issue of $2,500,000, a portion of the fund to be diverted for general financing and operations.

Greenford, England—The American Consulate, London, England, William L. Cooper, commercial attache, reports that a company at Greenford has preliminary plans under way for the construction of a new local mill for the manufacture of wall papers, reported to cost close to $350,000, with equipment. Information at office noted.

Baltimore, Md.—The Taggert Corporation, 101 East Fayette street, has been organized as an interest of the Taggert Brothers Company, Watertown, N. Y., manufacturer of paper bags and containers, and will operate in Maryland primarily as a sales and distributing company. Huntington Cairns is one of the heads of the new organization.

New Garment Bag Machine

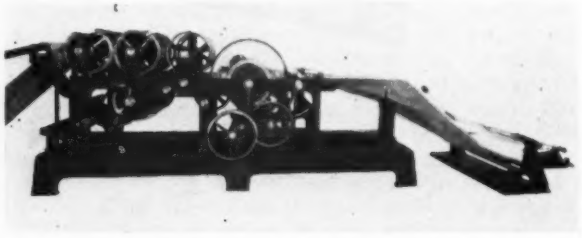
The garment bag machine represented in the illustration is equipped with a paper roll pick up which enables one man to handle and pick up a 30 inch roll of paper from the floor without other assistance or help. The operation of this pick up can readily be seen from the photograph. A shaft extends between both upright frames to which the roll hooks are secured. On the outside of the frames on the same shaft are secured two gear segments in which two pinions have large hubs with holes in them, in which the operator inserts a lever to operate the roll hooks in picking up a roll of paper. This pick up was designed to obviate the necessity of looking for help every time the operator changes a roll of paper, also to make it easy for the operator. The seam paste pan is located on the base of the pick up device, is in plain view and easily got at to refill. Standard roll break and alignment devices are supplied, also two roll arbors with compression cones.

This machine is designed right side up (seam on the bottom) which gives the paper the advantage of being drawn up at an angle to the former plate in as direct line as is possible to operate from roll to former. Also this seam on the bottom side of the tube operates to locate the type cylinder on the outer side of the tube when printing is done, and enables the setup man to get right up to the type cylinder and work with nothing in his way.

The former plates used are neckless straight edge design, over which the paper will flow smoother and with less liability of balling up just ahead of the draw rolls. The bottom draw roll is in rigid bushing bearings, but the top roll is arranged to be released and swing up to give clear space necessary when threading up the machine.

The cutting devices are teeth in the end of the former plate and a bar with a lip knife secured to it. The cutoff striker is of new design, the striker is secured at both ends to heavy fly wheel gears on each side of the machine and straddle of the tube, and all located within the machine frames, none of its parts overhang on outside of frames. The striker is one of the most rigidly constructed in existence, and will always cut the tubes off square.

Change in length of tubes is made with change gears in the well known manner used on all flat machines. Change in width is by changing former plates. After a tube is cut off, it is carried forward by advancing rolls to a creasing and pasting rolls these creasing and pasting rolls are so arranged that they may be rotated



PARRISH GARMENT BAG MACHINE

to locate the proper working point of the roll in relation to the oncoming bag, thus enabling the operator to adjust the pasting, creasing and last folding rolls to different lengths of bags. The pasting devices not only paste the flap edge of the bags, but the outside short length of the fold as well, thereby making a complete job of pasting.

When no printer is attached to this machine a conveyor and box is supplied to take care of the discharged bags, but when printer is attached the arrangement is different. No printer is shown in this photograph.

This machine is mounted on an extremely rigid hood shaped bed, which has strength enough in it to keep the machine parts in alignment under all ordinary conditions.

This machine makes the full list of sizes used in Garment Bags, viz; 23 inch to 28 inch in width, and 30 inch to 60 inch in length. I send a man to set up the machine and start it into operation and instruct the operator in its operation. The machine can be changed from one length to another in about five to seven minutes and be in operation again. When changing from one width to another, 15 minutes is ample time for all operations, this would be for one man working alone. If the operator can have one man to assist him while making a change he should do it in half the time.

As shown the machine is 6 feet, 10 inches high, 26 feet long, with conveyor it takes up 36 feet in length, it takes about 10 feet wide, full length, this includes space to work on all sides of it.

Shipping weight boxed up is 13,000 pounds. This machine is guaranteed to make 50 or more bags per minute from 25 lb. basis paper or heavier, in 30 or 60 inch lengths, any width from 23 inches to 28 inches for which the machine has formers. The machine is manufactured by A. L. Parrish, 1702 Ribinson Street, South Bend, Ind.

New Issue

140,000 Shares

Kimberly-Clark Corporation

(A corporation of Delaware)

Common Stock (no par value)

CAPITALIZATION

	Presently to be Authorized	Presently to be outstanding
First Mortgage Gold Bonds	$20,000,000	$6,000,000*
6% Cumulative Preferred Stock (par value $100 per share)	10,000,000	10,000,000
Common Stock (no par value)	500,000 shares	490,000 shares

* Series A 5% Bonds.

For information regarding this Corporation we refer to a letter of Mr. F. J. Sensenbrenner, President, which he has summarized as follows:

"HISTORY AND BUSINESS: Kimberly-Clark Corporation has been formed to acquire the assets and business of Kimberly-Clark Company. The business had its beginning in 1872 with an initial investment of $30,000 and has grown to its present size mainly through investment of surplus earnings. The business consists chiefly of the manufacture of book papers for magazines and other publications, supplying at least 50 national magazine publishers, while its rotogravure paper is used in about 90% of all publications using that product in the United States. A substantial part of the earnings is derived from the manufacture of specialties, including one which is used exclusively as the basic material in the manufacture of 'Kotex,' as well as from the sale of timber. Kimberly-Clark Company owns directly or through a subsidiary (Kimberly-Clark Company, Inc.), seven plants in Wisconsin and New York, with paper production in 1927 over 141,000 tons, and 19,400 developed horsepower. Timber properties of Wm. Bonifas Lumber Company (another subsidiary) estimated sufficient to meet present capacity requirements of above plants for over 25 years.

SPRUCE FALLS POWER & PAPER CO., LTD.: Kimberly-Clark Company holds majority ownership of common stock, remainder being owned by New York Times Company. The Spruce Falls Company has long term contract to supply New York Times with its entire newsprint requirements, which it is expected will account for over 50% of Spruce Falls projected capacity. The first unit of its new plant, under construction for several years, has just started producing. The Spruce Falls Company represents a total investment of approximately $27,000,000, of which $6,500,000 was furnished by Kimberly-Clark Company, the balance representing New York Times Company investment and proceeds of the sale of bonds.

EARNINGS: The consolidated net earnings of the Kimberly-Clark Company and its wholly owned subsidiaries, after deducting adequate charges for depletion and depreciation, and after all taxes except Federal income taxes but deducting 12% per annum in lieu of Federal income taxes, and after deducting interest on the First Mortgage Bonds and dividends on the Preferred Stock of the new Corporation presently to be outstanding, all as certified by Messrs. Haskins & Sells, were as follows:

	Net Earnings as above	Per Share of Common Stock of New Corporation to be presently outstanding
1923	$1,395,364.18	$2.85
1924	1,977,613.69	4.03
1925	2,348,734.85	4.79
1926	2,607,280.15	5.32
1927	2,317,367.18	4.73
1928 (First quarter)	805,841.54 (3 months)	1.64 (3 months)
Annual Average	2,181,371.72	4.45

Kimberly-Clark Company has, in recent years, expended approximately $9,000,000 (Spruce Falls investment above mentioned, $6,500,000, balance represented by extensions of plants and properties) which has as yet produced practically no return, and from which it is expected a substantial income will eventually be derived. Net earnings for 1927 were affected substantially by the loss of production incident to the destruction of part of one of the mills, since restored to operation.

FINANCIAL POSITION: The new Corporation's consolidated balance sheet, based upon the consolidated balance sheet of the present Company and its wholly owned subsidiaries as of March 31, 1928, adjusted to reflect as of said date the formation of the new Corporation, the present financing, and the proposed acquisition of the net assets of Kimberly-Clark Company and its subsidiary, Kimberly-Clark Company, Inc., as certified by Messrs. Haskins & Sells, shows current assets of $8,668,431.28, as against current liabilities of $3,872,309.57, a ratio of over 2.2 to 1. The properties of the present Company and wholly owned subsidiaries have been appraised as of April 1, 1928, by The American Appraisal Company, the sound value (cost of reproduction new less depreciation) being fixed at $29,485,587.60. After giving effect to said appraisal and to said transactions, the book value of the common stock of the new Corporation presently to be outstanding, as shown by the balance sheet, will amount to $52.90 per share.

GENERAL: In view of the diversification and wide distribution of the Kimberly-Clark Company's products and its long established position in the trade, I look forward with confidence to the continued growth and prosperity of the business.

The principal officers and directors of the Kimberly-Clark Company are holders of a large majority of its common stock and will have substantial interests in the new Corporation. No change in management is contemplated.

Application will be made to list these Shares on the New York Stock Exchange."

We offer these shares, when, as and if issued and accepted by us and subject to the approval of counsel, Messrs. Chadbourne, Stanchfield & Levy for the undersigned, and Messrs. Quarles, Spence & Quarles for the Company. We reserve the right to reject subscriptions in whole or in part, to allot less than the amount applied for, and to close the subscription books at any time without notice. Interim Receipts or Temporary certificates deliverable in the first instance at the office of Hallgarten & Co., 44 Pine Street, New York City.

Price: $52 per share

Hallgarten & Co. **Lehman Brothers**

First Wisconsin Company

The information and figures contained herein while not guaranteed, are obtained from sources which we believe to be reliable, but are in no event to be construed as representations by us.

July, 1928.

New York Trade Jottings

Walter Hicks, of Daniel M. Hicks, Inc., dealers in paper mill supplies, of 200 Fifth Avenue, New York, is spending his vacation at Shelter Island, N. Y.

* * *

W. F. Moore, a recent graduate of the Pulp and Paper School of the New York State College of Forestry, is now a member of the staff of the United States Testing Company, New York.

* * *

Marquardt, Blake & Decker, Inc., of 153 Spring street, New York, are sending out samples of Executive Cover, which is printed on heavy weight light gray. This stock is manufactured by the District of Columbia Paper Manufacturing Company, for whom Marquandt, Blake & Decker, Inc., are distributors.

* * *

Orders received by the General Electric Company in the three months ended on June 30 amounted to $90,431,957, compared with $78,105,347 in the corresponding quarter of 1927, an increase of 16 per cent. For the six months ended on the same date, orders received amounted to$170,357,797, compared with $155,655,828 in the same period a year ago, an increase of 9 per cent.

Walter C. Baylies, well-known Boston business man, has been elected a director of the International Paper Company, New York. Mr. Baylies is a member of the firm of Amory, Browne & Co., of Boston, is chairman of the executive committee of the Edison Electric Illuminating Company, of Boston, and is a director of numerous other New England enterprises.

Tulip Cup Gets Decision

The United States Circuit Court of Appeals for the Second Circuit in New York, on July 2 rendered an unanimous opinion sustaining patent number 1,310,698 of the Tulip Cup Corporation, College Point, New York City, holding the patent valid and infringed by the Ideal Cup.

Judge Manton who delivered the opinion reversing the decision of the lower court said in part:—

"The reception of this cup by the public and its extensive sales indicates a preferment over other cups. The appellee has selected it because of its durability and cheapness. It has become an infringer. To conceive the idea which has resulted in this cup required more than the effort of one skilled in the art. The inventor has solved a problem which the art was trying to solve. The art was unable to see and appreciate the fact that when a rolled rim was placed on a single piece cup blank, a cup having the desired stiffness would result with the co-operative action of the dense, tough, rolled rim and the soft pleats of the wall, the latter enabling the formation of the former and the former functioning on the latter. This amounted to invention. We hold the patent both valid and infringed.

"Decree reversed, with costs."

Kalamazoo Paper Box Co. To Expand

KALAMAZOO, Mich., July 9, 1928.—The O. F. Miller Company has been awarded the contract for the erection of a large addition to the plant of the Kalamazoo Paper Box Company, at East Kalamazoo avenue and North Pitcher streets. The building contemplated will duplicate in size the company's original plant. It will be 50 by 155 feet in dimensions, three stories and high basement, giving 31,000 square feet of floor space, or 62,000 square feet in all for this concern.

It will be mill construction, according to M. C. J. Billingham, of Billingham & Cobb, architects. Adams & Lotte are doing the excavating and some of the material is arriving.

Robert E. Staebler, president of the Kalamazoo Paper Box Company, reports that business developing steadily and the concern is now crowded in its present quarters.

Buy Mutual Paper Corp.

SEATTLE, Wash., July 6, 1928.—An announcement of unusual interest has just been made by Blake, Moffitt & Towne, large pioneer firm of paper merchants that negotiations have been completed for the purchase by the company of the Mutual Paper Corporation of Seattle, one of the largest paper concerns of the Northwest.

While the Seattle company will be continued along the same general lines as heretofore the name will be changed to that of Blake, Moffitt & Towne and the business will be conducted as its Seattle Division.

The organization will be headed by O. W. Mielke, who is in charge of the Blake, Moffitt & Towne interests throughout the Northwest which include Divisions at Portland, Tacoma, Salem and Boise as well as Seattle. The officers of the new company will be O. W. Mielke, Preisdent; J. W. Thompson, Vice-President; E. H. Pope, Secretary; and James C. Whitelaw, Sales Manager

The news of this event has created a great deal of interest and comment in the paper trade. Not only is the Mutual Paper Corporation an old established institution, having served the Seattle trade for over 20 years, but Blake, Moffitt & Towne, the new owners of the company, are one of the oldest and largest concerns in the paper business on the Pacific Coast.

With the establishment of the Seattle Division the company now serves the Pacific Coast with 15 Divisions located in the more important centers including San Francisco, Los Angeles, Oakland, Sacramento, Fresno, San Diego, San Jose, Santa Rosa, San Luis Obispo, and Phoenix. This large chain has been developing for more than 70 years starting with its establishment with headquarters in San Francisco in 1855.

The company are agents for many of the most widely advertised lines of printing papers and in addition carry large stocks of coarse papers, paper products, stationery and twines—all standard brands which have long been known for their quality and uniformity.

It is pointed out that the new division offers certain distinct advantages to the Seattle market. Both the executive and sales staffs are made up of Seattle people who know the local conditions through their experience in the old company. In addition as one of the important units of a large coastwise merchandising chain, Blake, Moffitt & Towne will be able to offer features of service made possible only through an organization which has such widespread facilities for distribution.

Patents Granted To Leo Shlick

The following patents have been granted to Leo Shlick, of Boston, Mass., in his development of which the patents claim to be the fastest beater in the world. U. S. Patent No. 1,679,056, U. S. Patent No. 1,679,057, U. S. Patent No. 1,679,058, U. S. Patent 1, 679,059.

The same pertain to the Shlick Super Speed Beating Engine, equipped with special beating tackle, manufactured by the Leo Shlick Engineering Company under the above patents, under various other pending patents and patents applied for, and under U. S. Patent No. 1,623,364 and U. S. Patent No. 1,675,385 also granted to Leo Shlick.

Close to several hundred patented and patentable principles are embodied in the Shlick Super Speed Beating apparatus, to date circulating heavy all rag and other stocks at 125 to 150 feet per minute at high consistencies. Beating temperatures are kept down, hydration is elevated to the utmost and the beating action proper cannot burn, chop, crush or cut the stock.

The very highest grades of all rag paper are being beaten with great rapidity, resulting in a non-curling sheet of great strength. These beaters are manufactured and sold in sizes of 400-600 lbs. 800-1000 lbs., 1000-1500 lbs., 1600-1800 lbs., 2000-2300 lbs., 3000-3400 lbs., and 4000-4500 lbs.

The Bull Dog—

Sturdy—Faithful—Dependable

Rightly named "Bull Dog",—this Noble & Wood Jordan. Designed and built for the roughest class of work. Its sturdy, solid frame and rugged constitution are perfectly adapted to the treatment of heavy stocks for the manufacture of roofing, building, sheathing, hardware, heavy wrapping and carpet lining papers, saturating and deadening felts and similar products.

It has a capacity of 60 to 80 tons in a 24 hour day. Every detail of material and construction, from long-lived plug filling to vibration-free stand, is designed to maintain this production schedule day after day and year after year.

Representative manufacturers of roofings, floor coverings and other heavy products tell us the Bull Dog is the most efficient jordan obtainable for this type of stock. Let us show you how faithfully it can serve you in your mill.

NOBLE & WOOD
MACHINE COMPANY
Hoosick Falls New York

PAPER TRADE JOURNAL
ESTABLISHED 1872

Henry J. Berger
Editor

Ronald G. Macdonald
Editor Technical Section

Herbert J. Laughton
Assistant Editor

Thomas J. Burke, C. A.
Editor Cost Section

Reginald Trautschold, M. E.
Power Engineering Consultant

Member A. B. C. Audit Bureau of Circulations

Vol. LXXXVII New York, July 19, 1928 No. 3

FOREIGN TRADE IN PAPER

Exports of paper and paper products from the United States during May show a slight increase in value in comparison with April and an increase of 15 per cent in comparison with the corresponding month last year, according to the Paper Division of the Department of Commerce. Shipments of book paper and wrapping paper increased to some extent as compared with the preceding month, and these two items also show a substantial increase over May, 1927. There was a rise of 486,000 pounds in news print shipments compared with the preceding month, but at the same time a decrease of about 33 per cent in shipments of this item as compared with the same month last year. Shipments of box board decreased some 2,000,000 pounds in comparison with the preceding month, but a slight increase was registered in other classes of boards.

Exports of writing paper continue to show an upward trend, May's shipments exceeding April's by about 356,000,000 pounds and those of May, 1927, by about 792,979 pounds.

With the exception of papeteries, shipments of the finer papers and paper specialties showed a slight increase over May of last year, and also over April.

Tissue paper shipments, however, decreased slightly compared with the latter month. There was a slight decrease in exports of greaseproof and waterproof paper compared with May, 1927, and an increase of about 52,000 pounds of this item as compared with April of this year.

Shipments of boxes and cartons were somewhat larger than during May, 1927, or during the preceding month.

Exports of paper and paper products during May were valued at $2,500,192, an increase of $340,452 over May, 1927, and of $104,338 over April of this year.

Imports into the United States during May, 1928, show an increase of about 10 per cent over the preceding month and a slight increase over the corresponding month in 1927.

Imports of standard news print show an increase of 22,737,000 pounds over May, 1927, and an increase of 37,469,000 pounds over April of this year. Incoming shipments of other paper and paper products showed a slight increase as compared with May of last year, the same applying also to imports of this item for April of this year.

Total paper and board imports during May were valued at $13,308,182, of which $11,962,359 represented 162,220 tons of news print paper and $309,931 other paper and board receipts.

Statistics covering receipts of paper base stocks in comparison with April figures show a slight increase in the volume of pulpwood receipts and old rope and bags, and a slight decrease in the receipts of waste paper. Incoming shipments of wood pulp show a tonnage of 102,464, as compared with 88,519 tons in April of this year. The total value of paper base stocks during May is given as $7,374,037 as against $6,556,894 in April, and $8,864,944 in May, 1927

NATIONAL FUELS MEETING

Although the Second National Fuels Meeting is scheduled for September 17 to 20, 1928, the program committee is already in the enviable position of being able to announce a program that bears a remarkably close resemblance to a completed job. Present indications are that there will be twelve sessions of two papers each, and the manner in which the work has been approached and the splendid spirit of cooperation so in evidence last year at the First National Meeting, is clearly indicated in what the Committee chooses to call the advance program that has just been issued.

It takes very little imagination to visualize the prominence of fuels in our present-day industrial picture. One does not have to exercise a great deal of thought to get some idea of future conditions if there is not sufficient attention to the conservation of present supplies and investigation of future sources to be drawn upon after the present stores so liberally supplied by nature are gone.

To approach the problem single-handed is but to encounter no end of blind alleys and uncertain routes to equally uncertain destinations. There is but one way to reach an objective with any degree of certainty, and that is to obtain all the information available concerning the attempts of others and profiting by their experiences choose the most promising road. Then by seizing upon every bit of available local information along the way one may penetrate deeply into unknown territory. The degree of success is in direct proportion to the amount of cooperation given and received.

In planning the First National Fuels Meeting, the Fuels Division of the A. S. M. E. recognized these facts unmistakably. They accordingly set about the establishment of a Fuels Forum, open to all engineers, regardless of society affiliations, where in open meeting they might discuss their problems freely and compare notes, thereby concentrating their forces and building a solid front for future campaigns. The proceedings of this meeting have suggested new ways of approaching old problems, and in planning the Second National Fuels Meeting these records have proved invaluable. The motto "For American Engineers Interested in the Use and Conservation of Fuels" means just what it says and applies equally well to the coming meeting. There must be a furtherance of knowledge concerning the production and utilization of fuels, and there is no attempt to draw the line as to who shall discuss the subject.

This year's meeting is under the auspices of the Cleveland Section of the A. S. M. E.

President Willson Back From Germany

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., July 17, 1928.—"Everybody works, men and women and children, even grandparents down to small children, there are no drones," said Sidney L. Willson, president of the American Writing Paper Company, in addressing the Rotary Club at the Hotel Nonotuck last Wednesday on "Germany." The meeting was intrigued by his description of experiences in Heidelburg and the high standard maintained by the paper mills observed by the Holyoke paper manufacturer near Heidelburg. "Germany is a nation of efficiency, cleanliness and industrial activity, the word of four letters W-O-R-K being always kept before the people," he said.

"Germany no longer thinks of life in terms of war, except possibly of disagreements with Russia, but yet I saw several 'red' parades during my trips in that country with no apparent hindrance on the part of the authorities or show of power in any way by the German people," said Mr. Willson. "The German people gave indications to me that they are content with the Republican form of government and are through with monarchy. Basically, Germany has no advantage over us industrially or scientifically, for many of their ideas are of American origin with some German refinements," he said.

Mr. Willson said that the Germans were wise enough to realize their problems after the war; being wise enough even to know that their problems could be solved only through sacrifice and they must re-establish themselves with their former enemies to secure a working capital. As a result of this understanding the Germans are, in the opinion of President Willson, among the most efficient workers in the world.

President Willson, accompanied by Leon M. Yoerg, vice-president and general superintendent of the American Writing Paper Company, went to Germany two months ago primarily to attend the convention of the paper chemists and engineers at Heidelburg, the gathering doing all in its power to place every bit of information and comfort at the disposal of the American visitors. It was of particular interest to President Willson to find upon inspecting the Zander paper mills, a few miles from Heidelburg, that the son of the founder of the Zander mills had worked in Holyoke 40 years ago, being employed for a period in the Nonotuck paper mill, and revisited Holyoke again a few years ago, both occasions being interestingly recalled.

"While Germany is a country of low wage scales its people are contented and nothing more shows this spirit than the care given to their cottages and patches of green surrounding them," said Mr. Willson, who declared that he observed one strong point in the commercial aspect of the German manufacturer, namely the product was marketed for South America and this trade was being built upon a scientific basis.

"Never again," President Willson declared the Germans say when asked about another war. They intimated that Germany is doing more by peaceful means than all the wars in which the nation had been engaged could do enhancing the value of its product and thereby hoping to win world trade.

Educated in American Mills, Succeeds in Japan

DAYTON, Ohio, July 17, 1928.—James A. Connelly, of Hamilton, has received a letter from Umari Tamminsu, of Enso, Japan, who was educated in the United States, having received his training at Hamilton, where in the paper mills he mastered the technical and practical end of the business.

To Mr. Connelly, whom he calls his "father in the U. S. A.," he gives full credit for his success in Japan, where he has become one of the leading men in the paper trade. He said he would be glad again to visit the United States but business keeps him in Japan. "There is nothing to do but wait until I send my son to your place," he wrote recently, "and then you will become his grandfather in America.

"Now I have been nearly 16 years in the same place and that makes me feel like a part of the inventory," he continued. "But it is pleasant that we have built and enlarged during the whole time. We produce now 60,000 tons of cellulose; 20,000 tons of cardboard, and plan to build a sulphate mill with a production of 30,000 tons. I hope to hear soon from you again, for it is so very pleasant to get news from my old splendid Jimmy."

Many persons in Hamilton remember Mr. Tamminsu as he was obtaining his paper mill education at a time when the employment of Japanese was unusual in this country. The youth's aptitude attracted much attention. When he came to the Miami Valley to learn the English language and master the business at the same time, it was recognized that the United States was a dominant nation and its influence over the Japanese was never stronger.

In a paragraph in his letter, Mr. Tamminsu said: "It was 20 years ago when I by the sweat of my brow had to drill holes in big ones and small ones at your place. Well, the time passes and you are always the same glad Jimmy. I should like awfully well to come and see you, but the way is so long and takes so much time. I see that you have succeeded in your business and that makes me very glad."

The Japanese manufacturer unstintedly gives Mr. Connelly credit for the success he attained here and subsequently in his chosen avocation in Japan. That he has attained marked success in the business world in his native country by the introduction of American methods is not doubted.

A Sign of Busy Times in Paper Industry

Probably one of the best indications of the excellent conditions existing in the paper mill industry at the present time is the unprecedented activity of plants making paper mill machinery and other materials for pulp and paper mills. Reports from all sections of Northern New York show machinery plants operating at top speed and in not a few cases working overtime to fill orders on hand. In every case business is brisk and most of the plants have sufficient orders on hand to carry them along at present speed for several months.

The Bagley Sewall Company's plant at Watertown, which is at work on several orders for large paper making machines, has started overtime schedules and at present is working overtime three nights a week in an effort to speed up production. Lawrence & Hill, Inc., also of Watertown, are operating at full capacity on orders for special machinery. Business with this firm is unusually good and is expected to continue so indefinitely.

The Sandy Hill Iron and Brass Works, of Hudson Falls, is reported on a full time basis with a considerable amount of business on the books. The Northern New York Foundry and Machine Company and other plants in Glens Falls producing paper mill enquipment apparently are finding no difficulty in securing enough business to keep operations at normal or better. The same is true of the Noble & Wood Machine Company, of Hoosick Falls, where overtime work is under way in several departments of the plant.

The same activity extends to mills producing papermakers' felts and jackets. Both the Albany Felt Company, at North Albany, and the Kenwood Mills of F. C. Huyck & Sons, at Rensselaer, are running on capacity schedules.

American Writing Paper Co. Changes

HOLYOKE, Mass., July 17, 1928.—John G. McNaught, for several years in the local sales office of the American Writing Paper, Inc., has been transferred to the New York sales force, it was announced Friday by Russell S. Madden, general sales manager of the company. He will assume his new duties August 1. Edward H. Sussenguth, chief clerk of the Parsons division for a number of years, will succeed Mr. McNaught. Mr. Madden also announced the transfer of R. F. Linserd from the papeterie section to the advertising department. These changes are announced to be in accordance with the policy of the company to make promotions within the company wherever possible.

SIZE

with

KALBFLEISCH WOOD ROSIN SIZE

Economy is the keynote of this Size. And for papers made from unbleached pulps Kalbfleisch Wood Rosin Size gives results equal to the more expensive gum Rosin Size.

In connection with the consistently lower and more stable price of this size there is a further advantage. Kalbfleisch Wood Rosin Size assures satisfactory results through its uniformity and high sizing value.

These are tangible advantages which reduce the production cost of papers where absolute whiteness is not essential. Kalbfleisch Wood Rosin Size, through dependable quality, gives users these desirable results.

Other Kalbfleisch Chemicals are—

ALUM (*both Commercial and Iron Free*)
CASEIN (*Domestic and Imported*)
ROSIN SIZE · SATIN WHITE
SALT CAKE · CHINA CLAY
SODA ASH · MURIATIC ACID
AMMONIA · SULPHURIC ACID
NITRIC ACID · GLAUBER'S SALT
SULPHATE OF SODA

The
KALBFLEISCH *Corporation*

200 Fifth Avenue New York, N. Y.

PLANTS

ERIE, PA. KALAMAZOO, MICH. CHATTANOOGA, TENN. ELIZABETH, N. J. WATERBURY, CONN. DE QUINCY, LA.

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Edited by
RONALD G. MACDONALD, Secretary

Detection of Formaldehyde in Paper*

By T. C. Bentzen[1]

Formaldehyde in paper is never a part of the beater furnish but is introduced into the paper as an ingredient of the surface size, clay or baryta coating, photographic emulsions or similar preparations, as for instance blue print coating, where it is used or rather misused as a hardening remedy for glue (gelatin) to make the coating resistant even to hot water, etc.

This property of formaldehyde to harden paper makes it somewhat difficult to set the formaldehyde free and prove its presence, but the method indicated in this article shows how these difficulties may be overcome and give absolutely reliable and easily distinguishable results.

Method Involves Two Steps

This method involves two steps: (1) A preliminary test which will prove whether or not formaldehyde is present, and (2) A more exacting test which will preclude the possibility of uncertainty.

The Preliminary Test:

50 cc. of about 27 per cent chemical pure sodium hydroxide solution (Merck's reagent) is measured into an Erlenmyer flask of about 125 cc. capacity. A little resorcinal is added and dissolved. About one gram of the paper to be tested is zig-zag folded and cut into narrow strips, whereupon it is brought into the bottle, shaking until all is thoroughly mixed. The bottle is then placed upon the heating plate and its contents brought to boiling.

If after boiling for about one half hour no red color has appeared, it is evident that the paper does not contain any formaldehyde. A yellow stain if formed is due to the fiber material and the alkali, and if during the boiling an orange yellow foam is formed upon the surface of the solution, sugar is present, probably due to decomposed cellulose. At all events, the absence of red color makes it unnecessary to make any further tests. The paper can be designated as "containing no formaldehyde."

If on the contrary the solution is turning red during the boiling, then we must count with the possibility of the presence of formaldehyde. The reaction of sodium hydroxide resorcinal to formaldehyde is cherry red, but other materials are capable of causing a similar reaction, as for example, chloroform (but its red reaction will disappear during the boiling), sugars (orange yellow to orange red), etc. Besides this, the presence of albumin will interfere with the reaction. Therefore, if the result was not a red color, the second part of my method must be used.

More Conclusive Tests

To perform this we need a small still, for which specially shall be recommended the use of an electric flask heater, a Kjeldahl Pyrex glass flask, capacity 300 cc and a Friedrick's screw type condensor.

The still is furnished with 50-100 cc distilled water and one gram of the paper in question, ground to a fine flue or mote (for this purpose I make use of a Schroester's Almond grater; new No. 10, which may be obtained at any hardware store). The distillation should not be carried too far and the distillate should be tested according to one or more of the following methods:

Methods

1. Nessler's Reagent added to the distillate (a few drops to a few cc) is reduced if formaldehyde is present.
2. Resorcinal test. A little resorcinal is disolved in about 3 cc of the above mentioned sodium hydroxide solution, whereupon about 3 cc of the distillate is added. The mixture is boiled about ½ hour or longer until a cherry red color which deepens through elongated boiling will prove the presence of formaldehyde.
3. Silver Mirror Test: To about 3 cc silver nitrate solution 1:10 is added ammonium hydroxide drop by drop until the originated precipitate again dissolves. To this ammoniacal silver solution is added about 3 cc of the distillate and the mixture is heated. Separation of metallic silver, which will stick to the wall of the test tube, forming a silver mirror, proves the presence of formaldehyde.
4. Aniline test: Even traces of formaldehyde will cause a turbidity in freshly prepared aniline water. (5 cc aniline shaken with 100 cc distilled water and after 5 minutes standing, filtered through moist filter paper. The aniline must be kept in small well-stoppered bottles with very little air space and should be protected from light).

For these test-tube tests an electric test-tube boiler is very much to be recommended.

An Important Point

In using these methods it must be remembered that it is very important that the still (in all its parts) as well as the flask and test tubes are cleaned as thoroughly as possible, as the least trace of formaldehyde left in the equipment is able to react and thereby give misleading results.

* Presented at Interstate Convention of the Paper Technologists Club, Kalamazoo, Michigan, June 23, 1928.

[1] Member TAPPI; Chief Chemist, Whiting-Plover Paper Company, Stevens Point, Wis.

Processes For Deinking Paper

By Joseph Rossman[1]

The processes for the recovery of pulp from printed waste paper may be divided into three classes. A recent U. S. patent No. 1,640,612 gives the following outline of these processes: Mechanical processes, wherein a discolored pulp is produced, the complete removal of the inks not being attained. Chemical processes, employing the open tank cooking process, wherein the papers, after sorting, dusting and shredding, are delivered to cooking tanks containing a solution of soda ash, or caustic soda, and treated under steam pressure from ten to fifteen hours. Combined mechanical and chemical process, wherein the rotary boiler process is employed, and the papers after sorting, dusting and special shredding, are fed into a large rotary boiler containing a solution of soda ash and caustic soda, or lime, or soap, the boiler is rotated for a period of six to ten hours, steam being injected for the cooking. This process results in the de-fibering and de-inking of the paper, but is not positive in its action. Cooking engines process, wherein the papers, after sorting and dusting, are fed into an elliptical shaped tub divided down the center by a mid-feather, and in one side of the channel is a propeller. A dilute solution of soda-ash is run into the engine; the solution being heated by steam for one and one half hours, and the cooking requiring two hours, or more. In all the above methods, after the papers have been cooked, they are put through a washing process, several methods being employed—the most general being the washing engine, which comprises a beater shaped tub, a circulating roll equipped with knives and octagonal drum shaped cylinders, application of a continued stream of water being required for the dilution of the impurities of the cooking process. In this operation the removal of the inks and carbon takes place. The pulp after being washed, is transferred to the bleachers, which contain dilute bleach liquor heated to 80 degrees, and after immersion in this liquid for some thirty minutes, is then transferred to screens and dryers.

Deinking News Print

A number of processes have been developed for removing ink from news print. There is becoming available an increasing quantity of used and old newspapers. The problem involved in deinking newspaper is clearly discussed in U. S. patent No. 1,545,707. It is stated that due to the increasing cost of paper making material, and consequently of paper, the utilization of these waste papers by again turning them into usable news print is becoming of considerable importance to the trade. It has heretofore been impossible to de-ink the waste news print sufficiently to permit its use in making new news print paper. This waste has therefore been used in making heavy wrapping paper, or cheap grades of board. With papers made with a rag base, it has been possible to de-ink by the use of caustic soda or similar materials, but these cannot be successfully used with wood pulp paper since such deinking agents attack the wood fibre and have a deleterious effect upon it. Ordinary news print contains a major portion of ground wood pulp with a smaller portion of the more expensive sulphite pulp. This latter is added to give strength to the paper. Where properly de-inked, waste paper is available and can be supplied in pulp form for paper making the quantity of sulphite stock necessary can be materially reduced with the consequent reduction in cost. A further factor in this cost reduction lies in the fact that the waste paper is available in the centers of population where the paper is used and the heavy freight costs of moving the material from the present sources of supply of paper material are eliminated.

The following abstracts give a review of the patents relating to the deinking of paper:

[1] Patent Attorney, Washington, D. C.

1. Lambert 32,879. July 23, 1861.

The printed paper in its ordinary state is boiled in a closed vessel for about two hours in a weak caustic alkali of a specific gravity of 1.001, after which the paper and liquor should be allowed to stand not only until it may be cooled down to ordinary atmospheric temperature, but for about twelve hours afterward. Afterward the lye or alkaline liquor may be removed from the paper and a fresh supply of such alkaline liquor be substituted and the whole be boiled for about one hour. After this the boiled paper is to be well beaten in the lye, or so broken up or reduced therein as to be converted into pulp. Subsequently the lye should be drawn from the pulp, and the latter be thoroughly washed with water.

2. Veazie 74,260. Feb. 11, 1868.

A saponaceous composition is first made by dissolving twelve pounds of potash, or an equivalent of other fixed alkali, in sufficient boiling water. To this add fourteen pounds of rendered tallow, or an equivalent of other fats or oils. Boil this mixture three hours; then pour it into a suitable vessel, and add, while cooling, twenty-five gallons of soft water, the water to be added gradually and the mass constantly stirred until cool, in which state it is of a brownish color, and of the consistency of a stiff jelly. The printed or colored paper to be cleansed is placed in an open or closed vessel, with sufficient soft water to cover it and allow of its being freely worked. When the mass has boiled thirty minutes, and is boiling, add, for every hundred gallons of water, five gallons of the saponaceous composition above described, stirring and beating the paper as much as possible, so as to reduce it to pulp. The ink and coloring-matter will soon begin to rise in a scum at the top of the water, which should be allowed to flow off through a spout or faucet fixed for the purpose. As soon as the ink or coloring-matter ceases to rise the water must be drawn off from near the bottom of the vessel, clean boiling water at the same time allowed to enter at the top, the passage of the water through the pulp serving to thoroughly rinse it. After boiling and stirring for a few minutes the pulp may be removed, when it will be found in a clean and white state, suitable to be again used in the manufacture of white paper. In all cases the pulp should be finally beaten and washed in clean water.

3. Wilder 99,735. Feb. 8, 1870.

The pulp after having been made in the rag-engine is run into a vat containing a rotary hollow foraminous cylinder, having an educt through either or each of its journals or ends, such vessel being a revolving sieve or strainer, such as will allow the water to flow through it, but not permit the pulp or paper stuff to pass with the water. Into this vat with the pulp, a very large quantity of water is allowed to flow, the amount of water to the pulp being greatly in excess, or sufficient to effect the thorough removal of the loose coloring-matters thereof. The flowage of water through the vat and cylinder is to be continuous. The pulp will be taken up on the periphery of the rotary foraminous cylinder, which should be nearly submerged in the water of the vat. With this cylinder a couch is employed, or apparatus such as is used in a cylinder paper-making machine, for removing the pulp from a woven-wire cylinder thereof.

4. Coon 247,016. Sept. 13, 1881.

The paper-stock, which usually consists of cuttings, clippings, and waste is placed in an upright tank or vessel having a perforated false bottom, and to it is added a solution of pearl ash of about six degrees strength, in the proportion of about two

gallons to six hundred pounds of the dry stock. The vessel is then covered and hot steam admitted under the false bottom of the vessel for about four hours. This treatment causes the sizing and other substances to separate from the stock and to rise to the surface of the water of condensation which will have accumulated in the vessel. The steam is now shut off, and water either hot or cold is admitted at the bottom of the vessel until the water in the latter rises, bearing the sizing, etc., to its surface, and overflows the top of the vessel or passes off at a waste-outlet. When the surface impurities are thus removed the incoming water is cut off and the water in the vessel is allowed to drain off at the bottom. The next step consists of removing the stock to the beater, where it is placed in water at a temperature of from 120° to 150°, to which has been added two gallons of solution of pearl ash of about six degrees strength, which serves to remove or destroy all the size that may remain in the stock, and leaves the latter in condition to receive the bleach, color, etc. The pulping now proceeds, and while it is in progress the chlorine is added, which bleaches the mass in about fifteen minutes. The chlorine being employed while the stock is hot, the bath in the beater being kept at from 120° to 150°, it accomplishes its work and passes off with the steam and vapor, leaving no traces behind.

5. Ryan 281,400. July 17, 1883.

Making paper from waste paper which consists in dusting the imperfections, then placing the imperfections in a hot alkali solution and dissolving the surface ink, then draining the imperfections while still in sheet form, then washing from the surfaces of the imperfections the alkali and dissolved ink, then pulping the imperfections, and finally forming the pulp into paper.

6. Ryan 283,026. Aug. 14, 1883.

The invention consists in showering a hot alkaline solution upon a loose moving mass or stream of the scrap paper. By this method the surfaces of the scrap paper become well wetted with the solution in an instant of time. If a dry mass of scrap paper be immersed in a vat of the solution, many scraps of paper will unite and cling to each other like the leaves of a book, and the solution can only reach the united surfaces by the slow process of absorption, requiring much time and also requiring solution enough to soak the entire body of the paper, when in fact, only the surface may need cleansing. The same effects result from flooding a dry mass of the scrap papers with the solution.

7. Allen & Mason 320,612. June 23, 1885.

A process for transforming old printed papers into clean fine bleached pulp in water in which the dry papers are progressively subjected to the tumbling, beating, tearing, and screening action of a rotary self-discharging dusting-engine, and then progressively introduced in loose condition into water in a circuit-vat, with or without alkali in the water, and therein subjected in heated alkaline water to the oft-repeated and prolonged submerging and soft disintegrating or fiber-separating and ink-discharging action of a current-producing paddle-wheel rotating in the heated alkaline water in the vat. Then the coarse pulp in water is further reduced, and the dissolved or disengaged ink and sizing removed by subjecting the coarse pulp in water, and with added water to the soft beating, disintegrating, and washing action of a current-producing paddle-wheel or paddle-wheels, slowly and deeply rotating in the vat, and then the cleansed pulp in water is further refined and bleached by subjecting the same with a suitable bleaching agent in a circuit-vat to the soft reducing action of a paddle-wheel or paddle-wheels slowly and deeply rotating in the vat, and excess of bleaching agent subsequently neutralized or washed out by the rotary strainer or strainers.

8. Bryant 593,011. Nov. 2, 1897.

In the manufacture of paper, the process consisting of first washing and soaking the paper to reduce it to a coarse pulp, next screening the same by forcing it through a suitable pulp-screen of coarse mesh, then grinding and beating the same and then passing it to the paper-machine where the pulp is again screened and made into paper.

9. Meixell & Holt 748,968. Jan. 5, 1904.

The process of making paper from old newspapers, magazines, books, and other printed matter, which consists in reducing the same to a pulp, heating the pulp, and subjecting the pulp while heated to a compound consisting of acid, water and earthy matter to remove the ink and coloring-matter, then washing from the pulp the carbon of the ink or coloring-matter and finally making the pulp into paper in the usual manner.

10. Finkelstein 936,106. Oct. 5, 1909.

The process of converting printed paper into clear pulp of original color, which consists in reducing the paper to pulp, boiling the pulp in a hot water bath for a period of about one hour, bleaching the pulp in a boiling solution of water, hyposulfite of soda and oil of vitriol in the proportion of four ounces of hyposulfite of soda and one ounce of oil of vitrioil to each gallon of water for a period of about one hour, and then washing the pulp with clear water.

11. Petsche 955,898. Apr. 26, 1910.

The process of recovering pulp from waste paper, newspapers, books and the like, consisting of the following steps: 1, pulping waste papers; 2, soaking the pulped material in an alkaline solution and simultaneously subjecting it to the action of a mechanical agitator; 3, driving the pulped material over a coarse screen by streams of water acting thereon; 4, floating the material, passed through the coarse screen, onto a fine screen and 5, subjecting it to the action of streams of water, directed thereon to move it over the screen.

12. Hubbard 977,013. Nov. 29, 1910.

The process of removing coloring matter from paper-stock, which consists in reducing the latter to pulp; adding to the pulp a mixture of soap, whiting and water; washing the pulp thus treated; and finally adding a solution of chloride of lime.

13. Henkel & Gessler 988,874. Apr. 4, 1911.

A process for removing printers' ink from printed paper pulp by means of bleaching substances having an alkaline action, characterized by the printed paper pulp being treated with peroxide and colloidal silicic acid.

14. Meixell 989,023. Apr. 11, 1911.

The process of extracting ink or other coloring matter from paper which consists in beating up the paper into a pulp with water, adding a mixture of water and whiting, beating up the mixture of pulp, water and whiting, and finally washing the paper by beating up the pulp with an excess of fresh water and draining off the whiting and coloring matter.

15. Bonser 1,008,779. Nov. 14, 1911.

The process of removing ink from paper, which consists in washing and pulping the paper, macerating the pulp with a preparation consisting of turpentine, soap and water, boiling the pulp, removing the scum, treating the pulp with a preparation of carbolic acid and water, draining the pulp, treating it with a sodium carbonate solution, neutralizing the solution with dilute sulfuric acid, and subjecting the neutralized solution containing the pulp to electrolysis.

16. Hahnle 1,026,577. May 14, 1912.

A process for cleaning paper from printing and writing thereon by the use of alkaline liquids which may be afterward recovered which consists in first soaking the paper with a diluted alkaline solution, then subjected to a light pressure for squeezing out the liquid, then mixing the mass with water and re-

ducing the same to fibers without pressure, and finally sprinkling said fibrous mass with water for carrying off the impurities.

17. Burby 1,029,848. June 18, 1912.

The process of recovering all pulp from waste print papers, made partly of mechanical wood pulp, consisting of the following steps: 1, pulping and subjecting the waste papers to the action of an aqueous solution of borax; 2, draining and washing the material in fresh water; and 3, separating the pulp fibers from the impurities and collecting the clean pulp.

18. Herz 1,041,791. Oct. 22, 1912.

The process for treating vegetable and textile fiber, waste paper, wood waste and the like, for conversion into paper material to be treated in a solution of caustic soda in water in the cold state, said solution containing ammonia in the proportions of 8 grams of caustic soda and .01 liter of aqua ammonia to each liter of water and at the same time starting the disintegration of the fibers while being so treated, pressing the mass so as to crush the solid material, then subjecting the mass to centrifugal action, and finally subjecting the resulting material to treatment with chromic acid and size, the operations being conducted with the materials in the cold state.

19. Burby 1,060,158. Apr. 29, 1918.

The process of recovering pulp from printed waste papers consisting of the following steps: 1, pulping the waste papers; 2, subjecting the pulped material to the action of a solution of bicarbonate of soda, or of potash, at a temperature below its boiling point, and agitating the pulped material therein; 3, draining off the solution; 4, removing the impurities by washing the pulped material in fresh water, and collecting the clean pulp.

20. Werst 1,083,234. Dec. 30, 1913.

The process of separating fibrous matter from printers' ink, impurities and other foreign matter, comprising of dissolving the binding medium by subjecting the material under treatment to the action of a suitable solution; adding to the material thus treated a substance immiscible therewith; emulsifying the mass thereby obtained by subjecting the same to centrifugal action; and slowly stirring the emulsion until the immiscible substance together with the foreign matter separates from the fibrous matter, and stirring being so slow as to preclude reemulsification, while promoting the settling of the fibrous matter.

21. Burby 1,112,887. Oct. 6, 1914.

The processes of recovering the pulp from printed waste papers made in part of mechanical wood pulp, the process consisting of the following steps: 1, pulping waste papers; 2, steeping the pulped material in a solution, made of not more than two parts by weight of caustic soda, or its equivalent of other alkali, to one thousand parts of water at a temperature of not more than about 150° F. and agitating it therein; 3, washing the pulped material in fresh water; and 4, separating the pulp fibers from all impurities and collecting the cleaned pulp.

22. Bell & Lape 1,130,466. Mar. 2, 1915.

The process of treating printed paper stock to remove the ink and recover the pulp, comprising subjecting small sheets or pieces of the printed paper to the action of a soap solution and effecting removal of the ink by continuously subjecting the stock during the action of the soap solution, to an agitation sufficient to practically rub the ink off the surfaces of the sheets or pieces and insufficient to materially disintegrate the stock, washing the stock, beating up the washed stock to form a pulp, and subjecting the stock to the action of a second soap solution during the beating operation.

23. Cline & Rhodes 1,138,058. May 4, 1915.

The process of removing ink from waste newspaper, stock, book stock, and the like, which consists in pulping the stock lifting the ink by adding about 2 per cent of caustic soda, absorbing the lifted ink by adding about 2 per cent of aluminum silicates such as fullers' earth, kaolin and other clays, or magnesium silicates such as talc, soapstone, etc., and washing out the ink-carrying absorbent.

24. Winestock 1,138,596. May 4, 1915.

A process of de-fibering and de-inking printed paper, which consists in immersing the paper in a relatively large amount of liquid containing a detergent, circulating the material by means of fast driven propelling agents so that the current of said material on its return passage is subjected to constrictive effect alternately with subjection to expanding effect, and in its course passing the liquid through a flaring passage, and finally washing the stock.

25. Welsh 1,175,853. Mar. 14, 1916.

The process of recovering all pulp from waste papers, made partly of mechanical wood pulp, consists of the following steps: 1, pulping the waste papers; 2, subjecting the pulp to the action of spent digester liquids under any temperature; 3, draining and washing the material in fresh water; 4, separating the pulp fibers from the impurities and collecting the clean pulp.

26. Werst, Colle & Egmond 1,175,854. Mar. 14, 1916.

The waste paper is boiled under pressure in a dilute solution of sulfite, as for instance sulfite of soda, so that the woody matter is converted into cellulose and a bleaching effect is produced. The mass is then washed until it gives a neutral reaction and is ground, whereupon water is added thereto until a thin pulp with a low concentration of fibers is produced. The pigment is separated by an emulsion of immiscible liquid.

27. Wright 1,226,735. May 22, 1917.

An ink remover for paper stock comprising sodium carbonate, 4 pounds; chloride of lime, ¾ pound; kerosene, 1 gallon; soap, 6 pounds; combined with water.

28. Waring & Hauptili 1,245,839. Nov. 6, 1917.

A process of disintegrating and de-inking printed paper consisting in agitating a body of water containing a quantity of printed paper, saponifying the oily or fatty elements of the mixture introducing air into the mixture during the agitating and saponifying operation, and removing the resulting foam.

29. Weret 1,249,575. Dec. 11, 1917.

Process of separating impurities from waste fibrous material which consists in agitating such materials in presence of a cleansing agent, comprising a non-liquid fat-like body including higher hydrocarbons and a foam producing soap of the higher fatty acids, and separating the resulting foam, carrying the impurities from the cleansed fiber.

30. Navarre 1,265,809. May 14, 1918.

The process consists in first triturating old paper in a water bath, and then in washing the pulp obtained, in order to remove therefrom printing ink or manuscript writing ink.

31. Allison 1,293,293. Feb. 4, 1919.

The process of recovering fibrous and bituminous materials from roofing scrap in an alkaline solution, accompanied with agitation, removing the resulting disintegrated mass of fibrous and asphalt material, and rolling the same into sheets.

32. Milton 1,298,779. Apr. 1, 1919.

A process of removing ink and coloring matter from printed papers, consisting of treating the papers in a digester to the action of sulfurous acid and sodium carbonate, the proportion of sulfurous acid being in excess of the sodium carbonate, applying heated steam to the solution, causing the papers to circulate,

slowly at first, gradually raising the temperature and pressure and cooking the contents of the digester rapidly.

33. JESPERSEN 1,311,563. JULY 29, 1919.

The process of removing ink from waste paper stock comprising treating said stock with calcium hydroxid and then with sulfuric acid.

34. CROCKER 1,326,849. DEC. 30, 1919.

In the manufacture of paper, the process of subjecting a continuous stream of pieces of waste paper to the action of a hot alkaline solution, by causing each oncoming piece of paper, as nearly separate as is possible, to be submerged in, and moved through, said solution, to facilitate the exposure of its surfaces to the action of said solution, for the purpose of cutting, removing or neutralizing the ink or other materials fixed to said surface, and by not only removing said pieces of paper from said solution, but also by depriving said pieces of paper of most of said solution, and exposing them to the air to cool, preparatory to being treated in a washing machine.

35. BURBY 1,327,590. JAN. 6, 1920.

The process of converting old paper containing ground wood into chemical wood pulp, which consists in boiling said old paper in a bisulfite solution of sufficient strength to change the old paper into chemical wood pulp.

36. BASKERVILLE 1,351,092. AUG. 31, 1920.

The method of reclaiming inked paper which consists in saturating the paper in a mixture composed of kerosene, borax, soap, pine oil and water in the proportions substantially of two gallons of kerosene, ten pounds of borax, ten pounds of soap, two gallons of pine oil and three thousand gallons of water.

37. MARR 1,396,227. NOV. 8, 1921.

In the preparation of clean pulp from used paper, the steps of heating to boiling, a dilute soap solution and ammonia, with the paper stock, while hot removing a part of the separated oleaginous matter carrying substances other than paper pulp, then heating while hot, floating and separating oleaginous matters and substances other than paper pulp, separating the pulp from the liquor, adding a quantity of soap and ammonia less than that used in the first operation, adding a further quantity of the used paper, and repeating the operations.

38. ALLEN & McCOY 1,406,322. FEB. 14, 1922.

In the art of removing ink from printed paper, the improvement comprising treating the macerated paper with an alkali solution at a temperature of about 140° F. to separate the oil and pigment of the ink from the fibre, adding sufficient soap to the alkali-treated stock to form a substantially saturated solution of soap and agitating the stock, adding cold water to the stock to reduce its temperature to about 100° F. whereby more or less of the soap is thrown out of the solution, and agitating the stock and removing the bubbles of soap, oil and pigment which rise to the surface.

39. KRISHBRAUN 1,417,840. MAY 30, 1922.

The process of recovering the reuse, the fibrous and bituminous constituents of waste saturated felt consisting in mechanically disintegrating the fibres with their contained bitumen in the presence of a heated emulsifying agent.

40. EYRICH & SCHREIBER 1,421,195. JUNE 27, 1922.

The process of de-inking paper which consists in subjecting paper pulp to the action of an alkaline solution of bentonite, then washing the pulp, and adding an acidulous material to neutralize any remaining alkalinity.

41. JESPERSEN 1,424,411. AUG. 1, 1922.

The process of removing printers' ink containing a mineral oil vehicle from waste paper stock which comprises the step of treating said stock with a liquor containing sodium silicate, and calcium hydroxide.

42. STUTZKE 1,545,707. JULY 14, 1925.

The method of de-inking paper or the like which comprises agitating the material in a solution of sodium silicate and sodium bicarbonate, and washing out the solution from the material.

43. KELLNER 1,555,674. SEPT. 29, 1925.

The process which comprises pulping waste paper to be reworked at about 75° C., adding soda ash, heating to about 90° C., and mixing, then adding chloride of lime and sulphur, and again heating for a short period, and washing.

44. HAMMOND 1,572,478. FEB. 9, 1926.

A process for reclaiming newspaper which comprises heating the newspaper with water at a temperature below 110° F. approximately, while running into the heater a 20 per cent caustic soda solution in an amount equal approximately 2.5 per cent by weight of the newspaper taken, thereby producing an alkaline pulp, washing the alkaline pulp, adding to the washed pulp a slight excess of sodium acid sulphite above that necessary to neutralize the alkalinity of the pulp, while maintaining the mass at a temperature below 110° F. approximately and washing the resulting pulp to free it from excess sodium acid sulphite.

45. HAMMOND 1,572,479. FEB. 9, 1926.

The process of de-inking paper that consists in agitating paper in a solution in substantially the proportions of approximately one-eight ounce of saponaceous ingredient to approximately one-sixteenth ounce of an ingredient of the glucose series, and then washing the pulp after such treatment.

46. PLUMSTEAD 1,576,994. MAR. 16, 1926.

A method of de-inking paper stock, which consists in macerating the same with an alkaline sodium compound, introducing liquid chlorine to the agitated mass until from 25 per cent to 75 per cent of the soda has combined therewith to form sodium hypochlorite, and then cooking the mass.

47. GRANTON 1,585,092. MAY 18, 1926.

A process for the removal of printers' ink from paper, comprising the steps of pulping the paper; mixing ground soapstone with water: adding thereto a semi-solution of casein; grinding the resultant mixture; mixing the paper pulp and ground mixture together; agitating the final mixture; and then subjecting said final mixture to washing.

48. WELSH 1,601,193. SEPT. 28, 1926.

The process of de-inking paper which consists in treating the paper with a comparatively concentrated solution of sodium silicate and milk of resin and subsequently subjecting the paper to agitation in the presence of a quantity of water, whereby such solution is greatly diluted.

49. McGREGOR 1,640,612. AUG. 30, 1927.

In a process for the recovery of pulp from printed waste papers wherein a solution of trisodium phosphate, ($Na_3 P_4$), is used to commence the action of loosening the sizing containing inks, oils and carbons from the pulp fiber, and at the same time cause a bleaching action on said pulp fiber; the said pulp thereafter being subjected to the operation of pulping, beating, unknotting and washing, to produce the complete separation of aforesaid sizing, inks and carbons from the pulp in a continuous manner.

50. KIRSCHBRAUN 1,659,401. FEB. 14, 1928.

A process of treating fibrous stock containing a bituminous material, consisting in subjecting the same to the detergent action of bentonite in the presence of water at an elevated temper-

ature and under pressure to separate the bituminous material from the fibres and form an emulsion with the bentonite.

British Patents

51. Koops 2392 of 1800.

Printed paper is treated with quick lime and potash to remove the ink.

52. Archer 1575 of 1854.

Printed paper is immersed in sulphuric acid which removes the ink.

53. Knopf 13,269 of 1902.

A process for the preparation and cleansing of waste paper and the production of paper pulp therefrom, consisting in first sorting the waste paper, then subjecting the same to a tearing or beating operation either in a moist or dry condition, then kneading the paper in a suitable kneading machine to further reduce it, but not to entirely divide the fibres then subjecting it to the action of a soap solution in a washer, subjecting the paper to a drainage operation to withdraw the printer's ink and the majority of the soap from the paper pulp again kneading the pulp and washing and rinsing in a solution of water containing less soap, and finally rinsing the pulp in clean water whereby it is rendered suitable for re-manufacture into paper.

54. Jackson 4996 of 1904.

In the manufacture of paper pulp from printed paper, pulping the paper with water and oleic acid or a suitable mixture of fatty acids, and then adding ammonia or another suitable alkali to dissolve the oleic acid or fatty acids.

55. Herz 24,131 of 1908.

The process for the extraction of coloring matter, writing ink, printer's ink and printer's color from waste paper of all kinds, and for the reduction of such waste paper, and also of cellulose, wood pulp, and textile fibres without grinding, disintegrating, kneading or filtering, to paper pulp capable of being worked up as new paper, which consists in treating the waste paper with a liquor composed of caustic soda (NaOH), ammonia (NH_4OH), and water, in a cold or tepid state, but without boiling and without steam pressure, and then washing the treated waste paper with water.

56. Kurtz-Hahnle 26,019 of 1911.

The method of producing paper pulp from old paper, which consists in soaking the materials, such as printed or written paper, with diluted lye, so as to loosen the connection between the color or ink and the paper, subjecting the mass to a light pressure for squeezing out the liquid, adding water to the mass, reducing the mass to fibres by agitation, and cleaning the fibrous mass by passing it on an endless sieve under sprinklers so that the sprays of water carry off the impurities.

57. Herz 19,334 of 1911.

In a process of obtaining paper pulp capable of being bleached from vegetable and textile fibers, old paper, waste wood, etc., the material to be treated is macerated or cleansed in a cold or practically cold solution of NaOH, to which a little NH_4OH is added; it is then passed through compressing rolls into a centrifugal apparatus, where it is disintegrated and, if desired, further compressed.

58. Schimek & Kienzle 19,687 of 1912.

In a process of removing black and colored printers' ink without deteriorating the quality of the fiber, for the manufacture of pulp for paper-making, the material is treated in a warm bath of lye, such as KOH, without allowing the mixture to boil, and without previously beating or grinding, the material being then washed and transferred to the vats or to the paper machine.

59. Herz 19,334 of 1912.

A process for converting vegetable and textile fibers, old paper, wood waste, and the like into paper pulp, in which the material to be treated is macerated in a cold or practically cold condition in a preliminary receiver or vessel by means of a mixture of caustic soda and water and is then passed between compressing rolls into a centrifugal apparatus where it is disintegrated and if desired further compressed.

60. Schimek 19,697 of 1912.

The process of treating waste paper for the production of material for the manufacture of fresh paper, which consists in subjecting the waste paper to the action of an alkaline lye without previously heating or grinding the same, heating the material during the treatment to a temperature from about 44°C. to within a few degrees of boiling point, and then washing the material in the same vat.

61. Naamlooze 105,055 of 1912.

In Specification No. 24,057 of 1912 is described a process for separating waste fibrous materials from admixtures, coloring matters and impurities, which depends on what may be called the selective affinity of a liquid for substances of different nature; for instance, in separating paper or paper pulp from adhering printing ink black or other coloring matter, two immiscible liquids of different specific gravity are used, one having a higher affinity for the impurities than for the fibers, thus adhereing to the former in preference to the latter, which the other liquid has a higher affinity for the fibers and adheres to them rather than to the impurities. The present invention relates to an improvement or modification of that described in the operation that the specifically lighter liquid forms a foam with the specifically heavier liquid, the impurities and air, which foam floats on the surface either of the heavier or of the lighter liquid, according to whether the proportion of the latter is such that it is all a part of the foam or is in excess of this proportion. In practising the invention, the fibrous material to be treated for its purification for fresh technical application, is first subjected in suitable manner to the action of any medium adapted to loosen the impurities from the fiber, for instance to a solution of soap in which the soap amounts to about 0.01 per cent of the weight of the fibrous material. The material thus preliminarily treated is then subjected to the action of two bodies having the requisite selective affinity, one a liquid, such as water, and the other a combination of two bodies, namely a foam producer and a stabilizer. The semi-solid and solid higher hydro-carbons, such as vaseline or a more solid product, animal and vegetable fats and mixtures such as margerine, have the necessary selective affinity and have the property of stabilizing foam, so that when used in conjunction with a substance adapted to produce foam, such as a soda soap of a higher fatty acid, for instance, oleic or stearic acid, one of these foam stabilizers meets the requirement. A soap alone is not suitable because the foam which it produces is not sufficiently stable.

62. Knaap 111,860 of 1918.

A method of utilizing old paper to produce new paper in which the old paper, before being boiled with a soap-solution is ground in a beating or pulping engine wherefrom the unclean water is enabled to flow off at the top and whereto fresh water is supplied at the bottom, characterized by the fact that the boiled paper after being boiled with a soap-solution is washed in the boiling-vessel itself in such a manner, that intermittently hot water is let into the boiling-vessel at the bottom, and the wash water flows off at the top of the boiling vessel.

63. Galloway 115,940 of 1918.

The process for utilizing waste paper for re-making into white paper, characterized by the use of 60 to 80 per cent caustic soda

by which the waste material is treated under a boiler pressure approximately 35 to 40 pounds.

64. KUMAGAE 187,805 OF 1922.

A process of recovering fibrous material from waste printed paper, characterized by boiling the material in a mixture of tofu whey, with soap and hyposulphite of soda, thus washing the ink away. Tofu is prepared from the soya bean by adding a solution (about 1 per cent) of a magnesium of calcium salt to hot soya bean milk, proteid substances being precipitated in the form of a grayish white curd which settles out, leaving a yellowish watery liquid or whey. The curd is subsequently drained and pressed, and is known as "tofu."

65. BOURCET 198,854 OF 1923.

A process for removing ink from printed papers consisting in pulping the printed paper from which the ink is to be removed with hot water (about 20 per cent by weight) adding a mixture of oleic acid and sulphoricinate of soda (1 to 2 per cent approximately) adding to the pulp thus obtained toluene or xylene or other volatile hydrocarbon in weight equal to about that of the paper operated upon in mixing intimately, adding to the whole tepid water, agitating so that the cellulose shall be in suspension in the proportion of about 2 per cent, and in submitting the liquid containing the cellulose in suspension to the action of a centrifugal filter for the purpose of separating on the one hand the cellulose and on the other hand the water and the hydrocarbon or the carbide with the carbon and the pigments absorbed by this latter.

66. BOURCET 219,311 OF 1924.

A process for removing ink from printed paper consisting substantially: a, in bringing the printed paper into the form of pulp in suspension in water and in stripping the insoluble pigments of the printing ink, which this pulp contains, by dissolving the vehicle or varnish of this ink as claimed in the applicants' prior Patent No. 198,854 by an emulsion of a fatty acid (such as oleic acid for example) or a resin acid in a solution of an alkali salt, or of a fatty acid or of a resin acid which may be sulphonated or not; b, in eliminating subsequently the pigments thus stripped by treating the mass of pulp which has been subjected to the proceding operation, in a drum washer.

67. GRANTON 222,160 OF 1924.

For the removal of printers ink from paper disintegrated in the presence of an aqueous solution of an alkali or alkaline reacting substance, the use of a composition compounded as intimately as possible from mineral substances having detergent properties such as silicates of magnesium or finely divided clays and protective colloids having adhesive properties such as casein, dextrin, or gelatine.

68. GRANTON 240,924 OF 1925.

A process for producing paper which consists in intimately mixing wastage, recovered from the water used for washing de-inked printed matter, with pulp, adding, if desired, strengthening coloring or bleaching agents or more than one of the same and then converting the mixture into paper in known manner.

German Patents

69. HORST 71,012. AUG. 26, 1893.

Paper is impregnated with petroleum which is removed by boiling the comminuted paper with caustic soda thus removing the printers ink.

70. LOHMANN 75,447. MAY 21, 1894.

Printed paper is impregnated with oleic acid and cooked under pressure with enough caustic soda to saponify the oleic, then pressed and washed with hot water.

71. HORST 76,017. JUNE 20, 1894.

Printing ink is removed from waste paper by a mixture of water glass and carbon bisulfide or paraffin oil.

72. MOUTARDIER & PICARD 88,563. SEPT. 10, 1896.

A process for treating waste paper which consists in treating the cold soaked and comminuted stock with an alkaline lye mixed with garlic or allylsulfide.

73. BUHLER 94,467. SEPT. 27, 1897.

Process for preparation of paper pulp which consists in treating the material with phenols at elevated temperatures.

74. HENKEL 215,312. OCT. 26, 1909.

A process of de-inking paper by means of alkali peroxides and gelatinous silicic acid.

75. LOUIS 263,220. AUG. 2, 1913.

The printed paper is ground up and cooked with petroleum under pressure which takes up the ink and separates above the settled pulp in a layer which is easily removed. The pulp is washed with acidulated water and is used in paper making as usual.

76. ROHM & HASS 287,884. OCT. 8, 1915.

Printers ink is loosened from paper by means of enzymes of the pancreas.

77. ARIE 316,469. DEC. 5, 1919.

The ground waste paper is boiled in a soap solution in a special boiler. The hot wash water is passed through the pulp from below and the pulp kept floating, the inky water going off at the top.

78. GETHE 321,545. MAY 3, 1920.

The waste paper is passed through four baths, the first and third baths contain oxalic acid, the second bath has potassium permanganate and the fourth bath has aluminum sulphate. The paper is then passed through heated rollers.

79. CHEMOTECHNISCHE GESSELLSCHAFT 369,468. FEB. 19, 1923.

Waste paper is treated with hydrogenized phenols made water soluble by hydrotropic substances. For instance 25 parts of cyclohexanol are dissolved in 100 parts of 35 per cent solution of sodium tetrahydro-naphthalin sulphate. This solution is mixed with three parts water.

80. BOURCET 396,071. MAY 23, 1924.

Process for removing printers ink which consists in treating the paper with an emulsion of fatty acid in order to loosen the ink and then treating with xylol and separating the xylol by a centrifugal filter.

81. RUFFERT 401,145. AUG. 28, 1924.

Process for removing printers ink in which the paper is treated with pyridineor piperidine without mixing with water.

82. BOURCET 415,062. JUNE 12, 1925.

A process for de-inking paper which consists in treating ground paper with an emulsion of fatty acid and separating the pulp from the ink in a washing drum.

Other Foreign Patents

83. JESPERSON (FRENCH) 492,195. JULY 1, 1919.

De-inking paper by means of hydrate of lime which is later neutralized by sulfuric acid.

84. GRENAUDIER (FRENCH) 623,670. JUNE 28, 1927.

De-inking paper by boiling the paper in soapy water and continually agitating and removing the scum, then rinsing with water and boiling with dilute sodium carbonate and finally rinsing with water.

85. KIENZLE (AUSTRIAN) 48,397. JUNE 10, 1911.

Paper is treated with alkali at ordinary temperatures and washed with water.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry

Clarence J. West, Chairman

Scaling of Boilers by Softened Water. Method of Prevention. P. Le Telier and H. Sunder. Chimie et Industrie Special No. 241-243 (Sept. 1926). Paper Industry 9 793-795 (Aug. 1927); Paper Maker & Brit. Paper Trade J. 74.255, 359 (Sept. 1, 1927). Gypsum bearing water which had been softened (presumably in the cold) by the lime-soda ash process to 4° to 5° of hardness (French), 5° to 2° of caustic alkalinity and 3° to 5° of total alkalinity, caused heavy calcium sulphate scaling in a boiler by reversal at high temperature of the reaction taking place in softening ($Na_2SO_4+CaCO_3—Na_2CO_3+CaSO_4$). Another water containing but little sulphates and softened in the same way gave but a very thin pulverulent deposit on he boiler tubes in 1 year. Renewal of the trouble was prevented by adding O.1 kilo of disodium phosphate per cubic meter as the water was being fed to the boiler. The calcium is eliminated (presumably as tricalcium phosphate) in the form of a fine sludge, requiring rather frequent blow downs and occasional cleaning out of the boilers, and scaling is practicaly completely eliminated. To prevent the sodium carbonate content of the water from rising above 0.1 g. per liter, 0.0175 liter of 45° Be. phosphoric acid per cubic meter of water was also added.—A. P.-C.

The "Kiesselbach" high pressure Circulating Thermal Storage. Anon Pulp and Paper 25, 1091-1092 (Sept. 1, 1927). Brief description of the system and its operation and discussion of its merits.—A.P. -C.

Vital Points in Lighting the Paper Box and Bag Factory. Victor Hyde. World's Paper Trade Rev. 88, 442-446 (Aug. 5, 1927). A discussion of the relation of light to production showing that the industrial reflector is the best way of controlling and distributing illumination.—A. P.-C.

Developments in the Pumping of Paper Stock. M. B. MacNeille. Paper Mill 50, No. 29, 20-26 (July 16, 1927). A description of the Fairbanks-Morse stock pump (A. B. Wood's patent) for handling stock containing large foreign particles or trash (strings, rags, etc.,) and of various installations of these pumps in pulp and paper mills.—A. P.-C.

Sulphite Pulp from Spruce. Donald E. Cable. Paper Trade J. 85, No. 13, 43-49 (Sept. 29); No. 14, 58-63 (Oct. 6); No. 15, 50-54 (Oct. 13, 1927); Pulp and Paper 25, 1215-1222 (Sept. 29), 1299-1305 (Oct. 20), 1405-1408, 1422, 1424 (Nov. 3, 1927). An exposition of the experimental methods used and observations made in an investigation of three important phases of the sulphite cooking of white spruce; effects of varying the nature of the base used, effect of using surplus gas pressure at the beginning of the cook, effect of no pressure drop at the end of the cook as compared with a drop starting after the fifth hour and one starting after the third hour. The economic importance of sulphite pulp as compared with other kinds of wood pulp manufacture in the United States is indicated. Attention is called to the 11 excellent contributions of the past 5 years by Miller and Swanson on the chemistry of the sulphite process. A systematic search after new and improved processes and equipment in the making of pulp and paper is shown to be a vital and important function of individual and progressive manufacturers as well as of certain departments of the Federal or State Governments. The possibility of one man making three experimental sulphite cooks under identical temperature and pressure conditions of cooking and carrying out all steps of a sulphite pulping investigation unassisted are advantages which recommend the use of the experimental equipment and methods of operation, which are described in detail. One unusual but important step in the making of a regular experimental sulphite cook involves the injection of compressed sulphur dioxide gas into the vapor space of the digester during the first hour of the cook to aid the penetration of the acid into the chips. The data given indicate that the determination of pulp yields is accurate within a maximum variation of about 1.2 per cent. Wood chips cooked in the equipment described in 65-gram quantities give approximately the same yield as the same wood cooked under similar conditions and weighing 500 to 600 times as much. The yield of reducing material (primarily wood sugars) in the experimental sulphite waste liquors of 6 typical cooks were found to be 13 to 20 per cent, which is very similar to the yield obtained from the same kind of wood by means of hydrolysis with dilute suhphuric acid. Spruce cooked by the standard procedure described with liquor containing five different bases (calcium, calcium and magnesium together, magnesium, sodium, ammonium) gave pulp yields and bleach consumptions substantially the same in all cases the yields varying from 49.3 to 50.8 per cent of dry pulp on the dry weight of the chips. The estimated yields of air-dry bleached pulp obtained varied from 1150 to 1178 pounds per cord of peeled white spruce. These conclusions regarding yield should not be applied to other woods, particularly resinous pines, where the kind of base in the cooking acid is a factor of major importance. The importance of complete penetration of the chips by the bisulphite part of the cooking acid before running the temperature above 110 degrees C. is emphasized. Injection of sulphur dioxide gas into the top of the digester during the first hour to aid penetration leads to the production of little or no uncooked wood fragments or screenings. The omission of this gas inpection causes the production of 0.4 to 1.24 per cent of screenings, except when cooking with a sodium-base liquor. The sulphur dioxide injection operation recommended by the author is shown to resemble but not duplicate the principle on which Moore and Wolf's U. S. pat. 1,119,977 (Dec. 8, 1914) is based. It gives a pulp having a bleach consumption of about 13.5 per cent, while pulp obtained under similar conditions, but with omission of gas injection, requires a bleach consumption of approximately 18.2 per cent. The gradual lowering of the digester pressure to 55 to 58 pounds (while the liquor temperature is 148 degrees C.) has two beneficial effects: (1) it lowers the sulphur consumption owing to dropping the partial pressure of sulphur dioxide in the digester to 4.5 or 5 pounds before blowing; (2) it increases the yield (particularly with calcium-base liquors) 1.2 to 2.7 per cent, but this is accompanied by increased bleach consumption. Best results were obtained when the lowering in digester pressure began about 4 hours before the end of the cook; when the lowering was started 6 hours before the end, the pulp yield was slightly increased and the bleach consumption considerably increased over corresponding values obtained with the shorter period of pressure lowering.—A. P.-C.

Value of pH Determinations for Controlling Sulphite Pulp Manufacture. Rene Escourrou and Paul Carpentier. Chimie et Industrie 18, 13-23 (July 1927); Papeterie 49, 690-697 (Aug. 10), 737-741 (Aug. 25), 782-786 (Sept. 10, 1927); Papier 30, 965-970 (Sept.) 1067-1075 (Oct. 1927); Paper Trade J. 85, No. 26, 37-42 (Dec. 29, 1927). Contrary to W. A. Taylor (Paper Trade J. 82, No. 8, 166-177 (Feb. 25, 1927)), the authors have found that the acid concentrations used in the manufacture of sulphite pulp are not so high as to preclude the use of pH determinations for controlling the acid making and cooking operations. The color

of the liquors is such that colorimetric determinations may be used. Raw acid from the limestone towers has a pH of about 2.0, which is reduced by about 0.4 by strengthening with relief gas and liquor in the recovery tank or tower. Improvement in results by cooking with liquor containing neutral salts aeg. sodium chloride), which is generally attributed to better penetration of the liquor into the wood, is really due to a modification of the pH of the liquor, which is brought into the optimum zone. Addition of chlorides lowers the pH and addition of sulphates raises it, due presumably to combination of a number of water molecules with each chloride molecule, while the action of sulphates is due to the probable formation of addition compounds complicated by hydration. For each species of wood there is an optimum pH value for the cooking liquor, which is about 2.0 for resinous woods, but which also varies with the moisture content of the chips and the surface tension of the liquor. Systematic study of the varation in pH of the liquor during three industrial cooks for different grades of pulp showed that it first rises (period of impregnation), then falls (disincrusting period) and finally rises again (second impregnation period). In cooking for easy-bleaching pulp, the second impregnation is omitted, and the period of disincrusting is conducted slowly and in such a manner as to obtain as low a pH value as possible at the end of the cook, short of the point at which the liquor "turns." Important savings can be effected by re-using the water repeatedly in diluting, riffling, screening and thickening the stock, provided it is renewed whenever it becomes too heavily loaded with soluble impurities, which is readily controlled by means of pH determinations.—A. P.-C.

Production of Alpha Fiber. G. A. Richter assignor to Brown Co. U. S. pat. 1,635,637, July 12, 1927; G. A. Richter and M. O. Schur assignors to Brown Co., U. S. pat. 1,639,704, Aug. 23, 1927; G. A. Richter assignor to Brown Co., U. S. pat. 1,640,853, Aug. 30, 1927; G. A. Richter and M. O. Schur assignors to Brown Co., U. S. pat. 1,643,355, Sept. 27, 1927; and G. A. Richter assignor to Brown Co., U. S. pat. 1,632,802, June 21 1927; Paper Trade J. 86, No. 1, 53-57 (Jan. 5, 1928). No. 1,635,637—"Strong sulphite pulp," obtained according to Can. pat. 262,608 of July 13, 1926 (cooking with a sulphite liquor in which the combined sulphur dioxide is equal to, or greater than, the free sulphur dioxide, say about 4 per cent of each, at a higher temperature and pressure than ordinarily used in sulphite pulping) is treated with a solution containing a proportion of oxidizing agent such that removal of the lignin is effected without causing a substantial change in the strength or pentosan content of the pulp. It is then digested at high temperature in a solution containing sufficient alkali to further remove impurities without affecting the strength of the pulp. It is finally bleached with the amount of bleach usually required for sulphite, giving a final product comparable in strength to kraft and comparable in whiteness to high-grade bleached sulphite, and having a considerable higher tear test than the initial "strong sulphite pulp." If desired, the bleached pulp may be "super-bleached" by treating for about 2 to 6 hours at a consistency of 6 to 8 per cent with a solution containing about 0.3 per cent of chlorine. No. 1,639,704—By bleaching pulp with the usual sodium or calcium hypochlorite bleach liquor containing sufficient alkali (e. g., caustic soda, caustic potash or sodium carbonate) to preserve a distinctly alkaline reaction throughout the entire bleaching operation, the bleached product has an appreciably higher alpha-cellulose content and is relatively free from resinous and ligneous compounds; it has a high color and is adapted for use, not only in the manufacturer of cellulose esters, but also in the manufacture of strong and yet soft paper. The addition of the alkaline to the bleach liquor may be made either at the beginning of the bleaching operation or from time to time in suitable portions before there is any tendency towards an acid reaction of the mass. No. 1,640,853—Pulp is produced by the usual sulphite process and is then given an alkaline treatment, either by injecting the alkaline reagent directly into the digester in which the acid digestion was carried out or by delivering it into the blowpit into which the hot contents of the digester have been discharged. The resultant pulp is exceptionally clean, contains from 92 to 94 per cent of a alpha-cellulose and is practically free from oxycellulose, beta- and gamma-celluloses, resins and lignin. No. 1,643,355—In the production of pulp with high alpha-cellulose content by cooking unbleached sulphite with alkali, when milk of lime is used for the second cooking efficient bleaching requires the use of an excess of bleach, with resultant weakening of the fiber and reduction in alpha-cellulose content. This can be overcome by cooking first with lime and then with caustic soda or with a mixture of both. No. 1,632,802—This invention provides a process and apparatus for carrying out the alkaline treatments mentioned in the preceding patents. The main features are that the chemical present in the spent liquor may be recovered without having to dehydrate the pulp to a consistency higher than about 10 to 12 per cent, that the fiber is washed free from treating chemicals simultaneously with the treatment, that the stock can be treated at various consistencies, and that, if the treatment is carried out at high temperature, the heat of the spent liquor is conserved. A series of treating baths gradually increasing in concentration of chemical from substantially only water at one end of the apparatus to a solution of maximum concentration towards the middle, and then gradually decreasing in concentration to substantially only water at the other end, is maintained in the apparatus. Water is continuously introduced into one end of the apparatus, and a flow of solution is produced from bath to bath toward the other end of the apparatus, from which water is discharged and into which the fiber to be treated is continuously passed through the apparatus in counter-current flow to the water. A volume of spent liquor is continuously withdrawn at an intermediate portion of the apparatus, and sufficient fresh chemical solution is added at about the same point to make up for losses and to replace the chemical withdrawn with the spent solution.—A. P.-C.

Pentosans in the Sulphite Cooking Process. L. P. Zhereboff. Bumazhnaia Promyshlennost, 6, No. 7, 387-404 (July, 1927); Paper Trade J. 86, No. 6, 55-60 (Feb. 9, 1928). The sulphite cooking process cannot be studied in its essentials under practical conditions due to its complexity. The B-napthylamine method for separation of ligno-sulphonic acids from the liquor is also unsatisfactory. Z. studies the reaction between the cooking liquor and each component part of the wood separately, beginning with the pentosans (A). Pure A was obtained from aspen wood by extracting with alkali, precipitating with Fehling's solution, decomposing with HCl and purifying with alcohol and ether. The analysis was: A—92.02 per cent, methylpentosans—2.80 per cent, ash—0.69 per cent, lignin—4.49 per cent. The A were employed in 21 experiments with cooking liquor and 10 experiments with sulphurous acid only. Precautions were taken against the presence of selenium in the acid. Cooking acid first swells the A. Below 90 degrees C. the A do not dissolve in the acid. At 90 degrees to 95 degrees C., after 8 hours, the A take up 39.6 per cent SO_2 on their weight. At 115 degrees C. a further amount of SO_2 is taken up by the A, $CaSO_4$ is formed and the liquor is darkened. The oxidation of SO_2 must take place at the expense of the oxygen of the A. The amount of SO_2 combined with A after cooking at 140 to 152 degrees C. is constant, viz., 97.5 per cent SO_2 on weight of A, while at 125 to 135 degrees C. it is 50 per cent. Pentoses obtained by hydrolysis from A were cooked with acid at 150 degrees C. for 5 hours. The pentoses decomposed and gypsum was formed. Gypsum results from the decomposition of a compound formed from A and bisulphite (B). When H_2SO_3 is used in place of B the reaction with A is more rapid. Below 136 degrees C. only half as much SO_2 is consumed as when B is used. For liquor containing 0.85 to 1.37 per cent SO_2, the strength of the acid has no effect on the rate or the result of the reaction. In the absence of B the A molecule is immediately hydrolyzed into a 2-member molecule. Prolonged cooking at a temperature above 136 degrees C. in the presence of free SO_2 causes decompo-

sition of the A and pentose molecules with formation of a carbonaceous deposit. Cooks were made substituting Mg for Ca partly or entirely. $Mg(HSO_3)_2$ does not cause the pentose molecule to break up quite as much as does $Ca(HSO_3)_2$ but the reactions are similar. Conclusions: The basis A molecule is $(C_5H_8O_4)n$, where $n=4$. Cooking between 80 degrees and 136 degrees C. causes the attachment of one B molecule to one A molecule, containing 4 pentoses. At 136 degrees C. one B molecule is combinted with two pentoses, this compound being more stable. Above 137 degrees C. the compound $Ca(C_5H_9O_4SO_3)_2$ breaks up, SO_2 is oxidized to SO_3, forming gypsum or free H_2SO_4, and the pentoses are destroyed. When both B and free SO_2 are present the former reacts with A first. Pentosans form no compound with B to give $CaSO_3$ on treatment with ammonia.—M. L. C.

Purifying and Cooling Gases ffom Pyrite in Sulphite Manufacture. L. Volkov. Bum. Prom. 4, No. 2, 97-114 (Feb. 1925). A detailed discussion of the various methods employed for the washing and cooling of the gases especially with the object of removing selenium. Results of various experiments are cited.—M. L. C.

Preparation of Cellulose. R. Pictet and F. Tharaldson. Norw. pat. 43,648. Papir-Journ. No. 12, 130 (1927). By the acid sulphite process a liquor is used, which in addition to combined SO_2, contains at least 100 grams per liter free SO_2.—C. E. P.

Process for the Manufacture of Sulphite and Sulphate Pulps. Brown Co., Portland, Maine. Norw. pat. 31,355. Papir-Journ. 15, No. 10, VIII, June 18, 1927. The process is characterized by the fact that part of the cellulosic raw material (e.g., wood) is cooked by the alkaline process and a part by the acid (sulphite) process, the liquors of which both contain the same metallic radical (e.g., sodium). The alkali compounds recovered from the alkaline waste liquors by use of an oxidizing smelt are used for the preparation of acid liquor, and the alkali compounds recovered from the acid waste liquor by means of a reducing smelt are used for the preparation of the alkaline liquor.—C. E. P.

Some Experimental Facts Connected with Rosin Sizing. S. R. H. Edge. World's Paper Trade Rev. 89, 616-620 (Feb. 24, 1928). When determining degree of sizing by the penetration test (floating a small piece of paper on 1 per cent ammonium thiocyanate solution, placing a drop of 1 per cent ferric chloride on the surface, and timing in seconds the appearance of the red color), it was found that with hand made sheets dried pressed between blotting paper on a metal plate on a steam bath, the time of penetration varied approximately as the cube of the bulk of the sheet. The sizing figure ($100\ P/B^3$, in which P is the penetration in seconds dried but the constants of the equation vary according to the grade of paper; with wood papers it was found that S. F. $= T/4 + 10$, and with rag papers S.F. $= T/6$. In neither case was there the least sign of any sudden increase in sizing at the melting point of rosin. Increased wetness due to beating resulted in remarkably little improvement in the sizing power of the rosin ($100\ P/B^3R$, in which R = percent rosin in the paper), the beneficial sizing effect of wetness being strongly marked only when tests are made with colloidal solutions like ink. When the percentage of rosin used is small, its retention is but very slightly influenced by wetness. Sizing was found to be nothing like proportional to the rosin content of the paper. The sizing power of rosin on wood pulp was found to be very much greater than on cotton. No difference in the sizing power of the rosin could be observed when paper was sized with natural rosin soap and with rosin soap containing 20 per cent free rosin.—A. P.-C.

Method for the Direct Preparation of Rosin Sizing Solution. Societe D'Exploitation De Breverts Et Procedes. P. N. Lyon, France. Nor. pat. 44074. Papir-Journ No. 12, 160 (1927). The process for the preparation of sizing milk consists of passing over rosin of a suitable dimension a solution of caustic soda whose concentration is under 10 grams per liter, thereby obtaining an ordinary rosin suspension which is directly suitable for sizing paper and also for other uses.—C. E. P.

Loading of Paper. Agnon. Boll. Staz. Sper. Indust. Carta: Papeteries 49, 201-205 (Mar. 10,1927). Paper Trade J. 85, No. 22,, 51-52 ((Dec. 1, 1927). The tests described lead to the following conclusions: (1) Retention decreases with increase in dilution of the stock; (2) Addition of increasing amounts of aluminum sulphate first lowers retention, then increases it to a maximum, after which it again slowly decreases; (3) Retention increases as the acidity due to sulphate of alumina is neutralized, and reaches a maximum for a pH value of 5.6; (4) When the amount of sulphate of alumina is increased, while keeping the hydrogen ion concentration constant, the retention first declines, then increases to a maximum with about 6 to 8 per cent of sulphate of alumina, and finally decreases again; (5) Rosin size increases retention, provided the acidity is not increased by addition of aluminum sulphate; (6) Addition of waterglass, especially when used in conjunction with rosin size, greatly increases retention; (7) Retention is increased by hydration of the stock by beating; (8) Increase in the size of the particles of filler increases retention; (9) Addition of ammonia increases the retention of china clay; (10) Addition of starch solution does not increase retention; (11) Talc gives a higher retention than china clay.—A. P.-C.

Investigation of the Suitability of Russian Clays for Paper Loading. K. Breitveit. Bum. Prom. 4, No. 4, 235-250 (Apr. 1925). A number of Russian clays were studied and compared with American and English clays. A typical Russian clay analyzed as follows: Loss on ignition 16.30 per cent, SiO_2—46.35 per cent, Al_2O_3—37.00 per cent, Fe_2O_3—0.10 per cent, CaO—0.10 per cent, MgO—0.15 per cent. The rate of settling of the clays in water was found to bear a definite relation to the alkalinity of the clays. When clay is too fine it washes through the wire on the paper machine; when too coarse it settles out in various places on the machine. The suitability of any clay for paper loading is usually determined by two tests: (1) In Binns' apparatus of 6 vessels about 60 per cent of the clay should be retained about equally in the third and fourth vessels at a flow of water of 2.85 c.c. per second. (2) When the clay is shaken for 30 mins. with 36 times its weight of water it should settle only slightly on 3 days' standing.—M.L.C.

Quick Method for Determining the Degree of Cooking. Carl B. Bjorkman. Paper & Timber J. of Finland No. 2 (Jan. 31, 1927); Paper Trade J. 85, No. 18, 59-60 (Nov. 3, 1927). Moisten 2 g of finely divided air-dry pulp with 5 c.c. of water (or take 5 g of wet pressed pulp containing about 60 per cent of water) add it to 150 cc. 0.02 *N* potassium permanganate and 5 cc. *N* sulphuric acid previously warmed at 250°C. in a 600 cc. beaker, agitate exactly 30 seconds with a stirrer operating at 1,000 r.p.m., add 100 c.c. of 0.02 *N* ferrous sulphate solution and rinse the beaker from which it was added with 40 cc. of water (42 cc. of wet pulp was used), stir for 10 seconds, carefully submerge a Gooch crucible in the solution, through it pipette out 100 cc. of solution, and titrate the excess of ferrous sulphate with 0.02 *N* potassium permanganate. A chart is given for obtaining the "Enso chlorine number" from the cc. of permanganate consumed by the pulp.—A. P.-C.

Determination of Moisture in Sulphite Pulp. Charles Draz. Rev. Univ. Soies et Soies Artif. 2, 485, 487 (June 1927); Paper Ind. 9, 1148 (Oct. 1927). The method is essentially the same as the xylene or toluene-distillation method for determination of moisture in cereal products except that acetylene tetrachloride is used for entraining the moisture, as it is practically non-inflammable. The technic of the method is described, and also a simple measuring device for receiving and measuring the water distilled, which can thus be estimated to 0.005 cc. The determination can be carried out in 30 min. The method gives the same results as drying at 100.°C. at atmospheric pressure and as drying under an absolute pressure of 16 mm. of mercury in presence of phosphorus pentoxide.—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Relation Between Sales Promotion and Accounting*

By Homer J. Buckley [1]

Accounting with me has been a hobby. I have been frequently asked by young men, and by fathers of young men who sought to enter the field of advertising, to give them what in my opinion would be the qualifications for a young man entering advertising work. I have startled a number of fathers by enumerating four outstanding qualifications for a young man looking forward to a successful career in advertising or in sales management work.

1—He should have a knowledge of cost accounting and finance.

2—He should have a knowledge of marketing and merchandising.

By "marketing and merchandising" I mean a knowledge of mark-up and turn-over, the relation of sales to costs, and a complete understanding of marketing channels in a restricted and intensified field.

3—He should understand the mechanics of advertising and sales.

4—He should understand how to write good copy or know what constitutes good copy.

Now you will observe that I put first that he should have a knowledge of costs, accounting, and financing. I say to you gentlemen with all sincerity that the advertising and sales manager of the future will have to base his career on a much broader foundation than has been necessary in the past. And the future means from this day on, because we are in a period of intensive selling the like of which very few men in this room have ever encountered before. Most of you men have lived to see the old order of things change. You have seen the time, in 1919, 1920 and 1921, when the American business man was selling in cold blood and buying with enthusiasm. We have seen that thing change completely and we have gone back into the market, where merchants are buying in cold blood. What we need today is a complete and comprehensive understanding as to how to sell merchandise on a scientific basis and sell it with enthusiasm.

A Remarkable Statement

Edward N. Hurley, when he was chairman of the Federal Trade Commission, made a remarkable statement at one time that sunk into me pretty deep, and I have found it to be absolutely true in my check-up in business. He said 50 per cent of American business men would do better by shaking dice; they do not know their costs. That sounds like a rather facetious statement, and to a man in a large business it is a facetious statement, but let me call this to your attention. In the United States we have 250,000 corporations and less than 20 per cent are making more than 6 per cent on their investment. This is a startling thing. Yet it is true. You men are identified very largely with the 20%—the larger type of corporations, with ratings beginning at $200,000, and going up into millions. But if you study the statistical readings of the more than 75 per cent below $200,000—they are down in the $10,000, $20,000, $50,000, $75,000 and $100,000 classes—they do not have cost accountants. Very few of them have auditors. Very few of them employ the services of an outside auditing firm even to audit the books, and frequently those concerns are not big enough to employ an advertising manager, and not altogether infrequently not even a sales manager. Sales are handled in the business very largely by some executive. He may be the secretary of the company, also interested in traffic, and he looks after a dozen and one things in the business; he is a "Jack of all trades."

High Costs of Selling

We are in a period of high costs of selling, and I see an opportunity for the cost accountant and the auditor to do a job he never did before. Sales promotion men and sales managers need figures with understanding; they need figures analyzed that mean something. What do I mean by that? Let me give you a concrete case. Several years ago I was called upon by the National School Supply Jobbers' Association to deliver an address for them at the Auditorium Hotel and my subject was the "fundamentals of mail order business." After my talk a gentleman followed me out of the meeting room and said "Mr. Buckley, I have been very much impressed with some of your remarks this evening. We have a very interesting school supply business in a town in northern Wisconsin. We travel about twelve salesmen, making northwestern states. We find it difficult to go into the smaller town to get business, and we rather systematically and promiscuously circulate a catalogue among the small town schools and institutions to get business direct by mail." "But", he said, "I am convinced from what you told us in this talk that we could do a much better job by creating a real mail order department. I would like to know if it would be possible

[1] Pres. Buckley, Dement & Co., Chicago.
* From N. A. C. A. Bulletin.

for you to come up to our town and help us install a mail order department to do the kind of a job referred to this afternoon."

I told him it would cost him $100 a day and expenses. I thought I had him floored, but to my surprise he said, "When can you come?" We arranged the appointment and I found myself on the way up there on a cold winter morning with snow about three inches deep, to a town about sixty miles this side of Minneapolis. I found they operated a retail store on the main floor. They had a 3-story building with about a 75-foot frontage, and the two upper floors devoted to a wholesale jobbing business. After going through the preliminaries of formal introduction to the different heads of departments, the sales manager and officers, the president invited me into a room and we sat down to discuss the mail order department, and the first thing I asked for after he said, "Mr. Buckley, the floor is yours—tell me what you want," were his sales records. He brought on his sales records, and I found he had a daily record of sales, a weekly record of sales, a monthly record of sales, a quarterly record of sales, a semi-annual record of sales, and a yearly record of sales. "How many departments have you?"

"Nine".

"Let me see your department sales records".

"We don't keep our sales by departments".

"How much of a volume of business are you doing?"

"Six hundred thousand dollars".

"How much income tax did you pay last year?"

"Thirty-five thousand dollars".

I said, "That's a very healthy business."

Talk Their Business

Now when I go into a business I talk very little advertising; I talk their business. I ask a dozen to fifteen questions, all of which have to do with their business. I was very fortunate as a young man, I was associated with Marshall Field & Co., first in the advertising department and later in their merchandising department. The merchandising manager was taken rather critically ill and confined to his home for quite a long period of time. I was a youngster in the office with him, and it fell to me to study the figures of the various departments of that store, and I used to have to visit his home at night and take out these figures. At the time I thought I was abused, but I was getting a rather practical education. Figures become a necessity with me at the time, and later proved a valuable asset, because they enabled me to apply figures to sales promotion. And that is why when this man said to me, "We don't keep our sales records by departments", or any business man says he does not keep his records on a scientific basis, I immediately asked for the financial statement.

They brought on the balance sheet. I took my pencil and went down the assets and liabilities columns, and I asked, "Don't you pay any rent here?"

"No, we own this building."

"Who does your auditing for you?"

"We have our bookkeeper pull our trial balance every month."

Some people's idea of an audit is a trial balance every month. You would be surprised, going up and down Main Street, in the business houses of America, how many people confuse a trial balance with an audit. I said, "Do you have any check-up on this?"

"Yes, across the street is the factory of the Blank Co. We have their bookkeeper come over and check our bookkeeper's figures."

"Do you have any outside help?"

"Oh no, just ourselves."

To make a long story short, I spent two days in that plant putting in a cost accounting system. At the end of the second day, I had the sales by departments for the nine departments of that business for the preceding year, and I showed them where one department of their business alone had lost $14,000 that year and they never knew it; and that same department in this catalogue that they were shooting out to small town dealers of the country had taken over 30 per cent of the catalogue pages. The result was we put them on a right accounting basis. We cut out the 20 per cent unprofitable line; we re-arranged the mark-up on some departments that were not going right. Some of the departments had a mark-up at least 30 per cent higher than before. I put their mark-up on a basis that was sound, and then we went out with our merchandise knowing what our costs were, knowing what our selling costs would be. We set a definite percentage of sales costs, and went out to build up department by department.

Another Concrete Instance

I will give you another concrete instance. I hope you will pardon the personal references, and I will make a confession to you as I go along. I have only learned this by sad experience. I have been twenty-one years in sales promotion and advertising work. About two years ago Mr. Ralph Rosenthal and Lord & Thomas called me on the telephone. "Mr. Buckley, there is a gentleman in my office who wants to do some advertising. He came up here from an Indiana town. The firm voted $15,000 for advertising and he came to Lord and Thomas."

You know there is a great advantage in having a national reputation in any business, because the green horn heads right for you, and of course Lord & Thomas get a large share. They drift into these large institutions; they drift into Ayers in Philadelphia, and Lord & Thomas in Chicago and other large agencies around the country. There was a time when they took a lot of that money, but the wise advertising agent today is not taking it. There are some yet who are taking it. He said to me over the telephone, "This man has traveled all the way up here, but we can't do anything for him."

In the course of half an hour this man came in. He was from Indianapolis and he was manufacturing industrial mops for sale to railroads, office buildings, institutions—strictly an industrial field. His market was about 35,000 very substantial prospects, and that was the whole sum of his prospects. I found he had been in business about two years. I found he had one standard unit in different sizes, and I said to him, "What does it cost you to make these mops (pointing to one)?" He looked at me in rather a surprised way and said.

"Mr. Buckley, what has that to do with advertising?"

I said,

"Just this, the relationship between your cost price and your selling price determines how long you are going to stay in business."

"Well", he said, "I have talked to a number of advertising men and nobody has ever said anything like that to me before. About $4.85 a dozen."

"Did you say 'about?' How did you arrive at this cost?" So he attempted to tell me how he arrived at the cost, and after hearing his method I knew he did not know his costs. They had $15,000 to spend. "How did you arrive at your selling price?"

"Well," he said, "When we started in business we canvassed the competitive field thoroughly; we got the price of all competitors and we got an average price of $9.00 a dozen. We have a iittle patent device, and we made our cost $9.25."

Auditor Allows Things To Go On

And yet I have found in many concerns that prices are allowed to be made where the auditor, who knows better, sits back and allows things to go on. I say the auditor and the cost accountant of the future must have a sales viewpoint as he never had it before. He has got to be the strong right arm of the sales department. He has got to understand the sales viewpoint to the extent that he will do more than lay down the figures. Too many cost accountants and auditors are content to bring in figures

and say, "Here are your costs". They are not big enough to step out in front and help make the price, based on cost. And when the sales department in the anxiety to get orders does things that the cost accounting will not permit it to do, they ought to be big and courageous enough to say, "Gentlemen, you cannot do that," and they should be able to prove to the sales department that it is unsound and uneconomic. What is the difference between a bookkeeper and an accountant? Many of you may have heard. The answer is this: The bookkeeper is a bookkeeper because he knows how to do it; but an accountant is an accountant because he knows why he does it. Are the accountants and auditors going to be just in the position of knowing how to do it, or are they going to be in the position of knowing why they do it? Analyze your figures, help the sales department to analyze them, give them an explanation with each cost. The average executive—sales or administration—in any statement you bring, goes to only one place, the bottom. What is the *net?* He passes over all this mass unless you have the sales vision or the sales viewpoint sufficiently in mind to make it explanatory. Tell him what he can do and what he cannot do.

The day is no longer here when you can bring in the statements and say, "Here they are." I believe sincerely that the auditor and cost accountant who qualifies himself with the fundamental knowledge of business from the sales and administrative standpoint, and particularly from sales, has a better opportunity for going on and up to the head of that business than any other man in the business. I think he is a more valuable man in the house. The best salesman I have in my organization is a man who cannot write a piece of advertising copy. I can buy advertising copy written at $50, $75, $100 and $150 a week. I can by the best brains in this town to write this copy at that price, but I cannot buy men who can analyze statements. When a business executive calls me in and says, "Sales are slipping. We want to do some advertising," he needs more than a copywriter; he needs somebody to analyze his business. Give me the balance sheet, and nine times out of ten I can put my finger on what is wrong.

Want More Accountants Who Can Do This

We want more cost accountants in business who can do this, who can tell what is wrong from the sales viewpoint; show the possibilities of getting orders; analyze the costs in different branches of sales; take the orders from this territory and orders from that territory, the orders from this product and for that product; show where the profit is and check it up with the sales. And when you can do that you can go ahead. Executives are hungry for that kind of information; they are begging for it and cannot get it.

To this mop manufacturer I said, after I heard his story, "Instead of spending $15,000 in advertising now, let me suggest that you take $500 or $1,000 and let us make a very thorough audit of your costs. You have a new business here, two years old; you want to put yourself on the right basis before you get in too deep." Well, he was disappointed. I could see his chin drop. He had made a special trip to Chicago to see Lord & Thomas, to place his advertising with them, and he probably had visions of the great success of Palm Olive and other things, and he thought he was going to launch right into the same thing. Here he found himself in a strange advertising office, and the man was advising him not to advertise but to spend $500 or $1,000 before he did. You can imagine yourself under such conditions. He agreed to it, but I did not know when he left my office that he was not going to head for somebody else.

What Would Have Happened Twelve Years Ago

Do you know what would have happened ten or twelve years ago? If that man had come into my office ten or twelve years ago and had said he had $15,000 to spend in advertising, I would have taken him into the conference room, and called in a copywriter, and arranged for a booklet, a folder or a broadside, and had his signature on the dotted line just as fast as I could have worked. That is the way I operated ten to fifteen years ago, because I only saw advertising. I was interested in copy, color, type, lay-out, photography and engraving. I was interested in snappy headlines, in coining phrases and slogans. I coined a lot of them, and they are in the graveyard; they are in the graveyard of despair and disillusion. Why? Because the slogans were bad? No, they were good slogans. Because the copy was not good? No, the copy was good. Because the art work was not good? No, the art work was excellent; I paid a high price for it. What was wrong? The structure was wrong. There were too many men starting out to advertise like the man who would start to build a house. Can you imagine a man starting out to build a $25,000 or $50,000 home, and deciding that the first man he is going to call in is the interior decorator? That is what is happening in most firms in sales promotion work. They call in artists and copywriters. I have seen big executives—mark you this—I have seen big executives spend half an hour or an hour deciding on a piece of art work for a front cover—whether the hand should be this way or that. I have been in the offices of some of the biggest executives in this country and seen them trying to decide on such a momentous question, instead of giving more attention to the fundamentals.

Well, in the case of this mop manufacturer, we sent a man down to Indianapolis. We got an auditor in town to go over with us and get some figures. We found they were occupying two floors in a loft space in a section of Indianapolis that might be comparable to Wabash Avenue and Van Buren. We found they were paying $1.50 per square foot for rental, and they had two floors, 7,000 square feet, so they were paying a high rental. That rental was about 6% higher than it should be. We found the two principals were drawing $50 a week—a very commendable thing in a business to put yourself on a low drawing account. They had no depreciation set up for replacement of a good deal of their equipment. They had no reserve for bad accounts. We showed him his costs were $7.16 a dozen. I said to him, "If I had taken your money and trebled your business, next year you would be in bankruptcy. If I could actually treble your sales, the more business you get from now on, the deeper you are going to be in." I venture to say that more than 50 per cent of the businesses in America, particularly in the manufacturing field, which are recorded as failing by Dun's and by Bradstreet's are failing for that reason, and because they do not have enough capital to meet the situation when sales are increasing and profits are not; not knowing their costs or not having those perfectly understood.

Would Be Better Business Executives

I have been instrumental, as a result of the teaching and practice I have been giving the last few years in having the University of Wisconsin make it obligatory upon every young man taking a course in advertising and selling in their School of Commerce to major in accountancy—not to become a C. P. A., but to have a better knowledge of it. I want more young men in the United States to study accounting—not as a vocation, I think probably both of those have been overdone as vocations, but think how much better it would be if business executives had an appreciation of the value and importance of accounting and advertising as a business matter—we would have a better understanding of things.

The first recommendation I made to this man was that he get out of his high rental place. I told him, "You are located wrong; you are hauling your raw material eight miles from the freight depot, and you are going back eight miles with your finished product. That should be absolutely wiped out. You are paying a rental all out of proportion to your type of business,"

"What do you propose?"

"How long is your lease?" He told me "n" years.

"I propose that you sell your lease. I am going to take you out of town." I had a fight on to convince him that that was the right thing to do. I wrote a letter on our firm's stationery to the Chambers of Commerce of about sixty towns within a radius of 75 miles of Indianapolis, and the letter, in substance, read something like this:

"Chamber of Commerce,
Evansville, Ind.
Gentlemen:—

We have a client doing a very satisfactory volume of business, employing about 18 people at the present time, but they have a potential possibility of bringing that up to 100 or 150 within a few years' time if the business is put in the right location. We are going to locate this factory in a small town where they will have a building, with side-track facilities. Will you please survey the situation and see what you can offer."

I had thirty invitations for this factory, and one of them was located in a little town where they could get rent for five years free if we would bring that factory in, in a building that had recently been vacated by an industry which was a branch of an eastern factory that had sustained some reverses, and they wanted to keep the building going. Nine months afterwards we were able to sell that lease, and we sold the lease for $1.85 a foot—they were paying $1.50. Instead of depending on a real estate agent we got a list of potential prospects, and we circularized this list, telling the problem straight, that we were moving the factory into a smaller community, and we sold the lease for $1.85, made a profit for him on that, took him into this town, and brought his cost down to $3.35 a dozen, and then we were ready for advertising. Advertising is an economic waste when not applied intelligently, but do you know what the greatest economic waste in business today is? It is personal selling. More money, more sales opportunities are lost by the sales staff of an organization today than can possibly ever be recorded. When the average business executive will stand up in the height of his enthusiasm for personal selling and scorn for advertising, and tell me advertising is an economic waste, I would like to check with that man, because I can prove to him that personal selling is one of the greatest economic wastes we have. Do you know that the average salesman is actually selling 4 hours out of 44 hours a week?

Waiting for the Prospect-Out

Do you know the hours spent in going and coming, in waiting for the prospect-out today, playing golf, too busy, and a dozen and one other reasons? Have you ever analyzed in your business what the average cost per sale or average cost per call is? Is there anything more tragic today than cold canvass? They come to my office by the score. I try to see a good many of them—I am not able to see them all. Going away—no idea whether he is a prospect or not. I could take you over on Randolph at State and stand on the corner and show you the greatest tragedy in business in America today. I can show you a line two blocks long, trying to get into the Oriental Theatre, and over 50 per cent are men with portfolios under their arms. That is no joke; it is serious—your salesmen and mine. That is the tragedy of it. There is where the waste is. I want to say to you we are in a period of intensive selling. No longer can we employ wasteful methods, and the cost accountant should no longer confine himself to factory production costs. That is not the problem. Factory production costs are solved. The biggest cost question that you as accountants have before you is sales costs, how to establish lower sales costs; whether it is profitable to handle this dealer's account when his business does not justify it; what should be done by your firm with this dealer who is getting a certain amount of business, and how can you increase business in profitable sales; whether it is profitable for you to continue that man in Michigan with 14 per cent sales cost as against the man in Illinois with 7 per cent. What does the analysis show? What are you doing to prove to your firm from the sales promotion standpoint that these costs are necessary? Those are the things today that are all important.

A More Intensified Job

I say the cost accountant should enter into the sales problem of business as he has never entered into it before. He should see that a more intensified job is done. He should show his organization, his sales manager, or his chief exactly how he can accomplish certain things on a more concentrated effort, and he can only do that by qualifying himself with sales knowledge. What the advertising man must know regarding cost and finance, the auditor and accountant must know in the future regarding marketing and merchandising. If you ask me tonight, "What can I do to equip myself from the sales viewpoint?" I will say, "Read everything you can get on marketing and merchandising. Apply it to your particular field so you will be in a better position to apply your cost and accounting knowledge to the problems of marketing and merchandising. Qualify yourself for a bigger position in your business."

My message to you is simply this: The sales promotion man, the sales manager of your business welcomes or should welcome an analysis of sales costs by territories, by men, by item, by product—in fact, give him as many details as you can, because that is the big problem in business today.

I think I could take thirty men with a sales promotion plan behind them, costing about what you are paying your forty salesmen and get twice the business the forty men are getting because you would put an intensive plan behind them to make their work more valuable.

Results show us that 85% of orders are not placed with cold prospects. They are placed on and after the fifth call. 85% of the orders given by merchants to a new man are given on and after the fifth call! Are you going to have him do cold canvassing? Are you going to ask the salesman to go out and do missionary work? Or are you going to pave the way for him?

The biggest and most alarming problems in marketing today is the high cost of distribution and I think that can best be illustrated to you in a crude, homely story told by W. H. Ingersoll when he was addressing a convention of retail jewelers in St. Louis which I happened to be attending. He said: "An Indiana woman was peeling potatoes in her kitchen one evening and she cut into the hollow of a potato and found a note from the farmer who grew the potato—"How much did you pay for these potatoes?" Out of curiosity, and amused at such an unusual experience, she wrote to the farmer, "I paid $4 a bushel for the potatoes. Why do you ask?"

The farmer replied, "I got 68 cents a bushel for these on my farm. It could not cost more than 32 cents to transport them to you. Who the devil got the $3?" My friends, distribution got the $3 and that woman felt she paid too much for distribution and not enough for potatoes, and she could not eat distribution. The farmer feels he is not getting his just and logical share. He is not getting enough for what he is producing and he is compelled to pay too much for the necessities he buys. You have got to find some way of cutting down the cost of distribution and a large part of that cost is for the sale and resale entering into it.

A Problem That Must Be Studied

We have to study that problem. There is where the cost accountant is going to exert his efforts—not in the factory, on the unit production per machine and all that. He is going to give more attention to this all-important question that I have

given you tonight. I say to you that the cost accountant and the auditor in any business who will take his cue, equip himself with sales knowledge, study all he can about merchandising and marketing, be prepared to analyze this from the sales viewpoint, is going to be a most valuable man. You must know what it costs to put a new customer on your books. How many men could raise hands tonight and tell me what it would cost in your business? If you knew you would go back and fire a lot of people in your complaint department. Mark you this—the average American business, outside of the mail order houses, does not know the cash value of a customer. If they did, they would employ a little better help to handle them. Do you know what is happening in your business? You can go into any one of your businesses and on the first of January and on the first of July your accounting department has a great big binder called a transfer ledger. In that transfer ledger they put the sheets with the names and addresses and records of once good accounts. What does the accounting department do with that ledger? They send it down to the shipping department and get the largest piece of paper and the largest piece of clothes line and wrap it all up. And where do they take it? They take it down stairs to the vault, there to remain for one, two, or three years. Did you ever see an auditor or a bookkeeper or a cost accountant pick up the transfer ledger and walk straight back to the main chief's office and say, "Good morning, chief; I have a very important message for you this morning."

"What is it, Sam?"

"I have under my care the names of 500 accounts that once gave us business that are not giving it to us now. Don't you think the sales department should make a concerted effort to find out why these people have stopped? Are our prices wrong? Are our practices wrong? Is our service wrong?"

Did you ever know one who did that Of course not, there is not any such. I say that's your job. I think the average president of any business would keel over backwards if the auditor ever came in that way and would say, "My God! where did you get the sales viewpoint?" Why is it that the ledger clerk and accountant, monthly, quarterly, semi-annually, will turn over the ledger sheet of an active account and never report it? Because they do not understand the cash value of a customer.

Why the Customer Quit Buying

I will tell you why the customer quit buying. Take the names of 100, take the first 100 names you come to of people who bought from your house in 1925, that have not purchased in 1926 and 1927, and I will tell you why they quit. I have been through it so often I can tell you exactly why. 68% of that 100 quit because of indifference. What is indifference? The failure to tell your customer frequently that business is appreciated; indifference to little things; the discourteous letter from the credit department, saying the account is past due, and not properly handled. Here is what is going on in your business. The sales department sells a bill of goods to a customer, a dealer out in Waterloo, Iowa. He has bought a bill of goods, say, one dozen heating irons. The shipment arrives on the 20th of the month. When the dealer opens the shipment, he finds one of them is damaged, so he writes the firm a very courteous letter and says the shipment arrived O. K., but on unpacking he found one damaged or one short. He holds the bill with the correspondence in file and does not pass it for payment. That, of course, comes into the claim department. You know if there is any place in a business where they haven't the sales viewpoint, it is the claim and adjusting department. This man's claim comes in and in the course of 10 or 15 days an answer may come forth. You have seen that. The cheapest help they can get in any business they employ in that department—Nellie and Mamie and Annie. The statement comes to this dealer in Waterloo, Iowa, and he pins it to the claim he has. The bill carries 2/10 discount or 3% by the 9th day. The collection department writes this man and says, "You have let the discount date go by." The fellow says, "That's the kind of bunch they are up there." Four or five days afterwards the salesman comes in and gets "hell." Three departments, but no coordination. The customer is sore. The collection department is trying to get the money; they are concerned only with getting the money. The claim department tries to see how little they can do to make an adjustment. The salesman calls on the chap and he gets "hell." That's lovely. But, men, it is so serious. It is going on all the time. I venture you can go into your business and find the same thing taking place—lack of co-ordination and cohesion in these things. The claim department writes, "We have investigated the records of the shipping department, which show there were 12 irons in that shipment."

How To Handle Such a Situation

The mail order houses know better how to handle such a situation. They know it costs them $10 to put their customer on their books, and they are not going to let anything transpire to lose that customer. When a woman writes in to a mail order house and says, "I ordered two dozen bars of soap and there were only one dozen and eleven bars in the package," they do not write and tell her their records show there were two dozen; they merely wrap up one and send it to her. They know the value of a customer. They know 99.5 per cent of the people of America are honest and they know they will get stung on ½ per cent.

I say there are two departments in most businesses that have vinegar in their veins, the credit department and the claim department. Should we criticize the credit department? No, not at all, but I say no sales meeting in any business should be held without the credit man being invited in. If that sales manager and credit manager could sit down together and lock arms, in full appreciation of what it costs, the struggle and trials and tribulations to get that customer, the maneuvering and strategy to get that customer, the credit man would be more careful in handling that customer in the future. The credit man should be a sales counsellor and business counsellor. He should never put the screws on. If you men ever get into any position where credit is part of your job, never put the screws on a customer. There are only two reasons why a man does not pay a bill, he either has not the money or he has overlooked it.

Now I hope, gentlemen, in this rambling talk tonight I have left a suggestion so you can go back tomorrow, or next week, or next month and apply it in your business. I hope I have dropped an idea which will enable you to improve your opportunity with your present connection. I hope I have dropped an idea or suggestion that will make your work more appreciated if you apply some of these facts in your business. If I have succeeded in doing that, my effort will have been worth while and I will feel compensated.

American Writing to Make Improvements

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., July 16, 1928.—The American Writing Paper Company Saturday filed an application with the city engineer's office for a permit to make extensive alterations in the Beebe-Holbrook and Wauregan Divisions of the company, the total expenditure to be $35,000. The alterations include the installation of a new power plant and the construction of a foot bridge to connect both mills.

Mishawaka Paper Mills Incorporate

INDIANAPOLIS, Ind., July 16, 1928.—Articles of incorporation have been filed with the secretary of state in Indianapolis by the Mishawaka Paper Mills, Incorporated, of Mishawaka, Ind. The corporation has an initial capital stock of $31,200 and will manufacture, purchase and sell paper and products thereof. The incorporators are P. J. Gallagher, L. J. Donohue, N. McFann, K. W. Simonton and Charles Krause.

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JULY 14, 1928

SUMMARY

Cigarette paper	376 cs.
Wall paper	17 bls., 1 cs.
Paper hangings	9 bls., 17 cs.
News print	4,257 rolls
Printing paper	52 cs.
Wrapping paper	91 cs.
Packing paper	39 cs.
Drawing paper	72 cs.
Filter paper	12 cs.
Basic paper	55 cs.
Surface coated paper	151 cs.
Baryta coated paper	125 cs.
Coated paper	14 cs.
Decalcomania paper	23 cs.
Transfer paper	8 cs.
Writing paper	16 cs.
Colored paper	26 cs.
Stencil paper and ink	62 cs.
Tissue paper	63 cs.
Litho paper	64 cs.
Carton paper	2 cs.
Straw pulp boards	106 rolls
Straw boards	584 rolls
Miscellaenous paper	79 cs.

CIGARETTE PAPER

P. J. Schweitzer, Pr. Wilson, Marseilles, 46 cs.
British American Tobacco Co., Paris, Havre, 54 cs.
De Manduit Paper Corp., Sarcoxie, Havre, 276 cs.

WALL PAPER

Heemsoth Basse & Co., Muenchen, Bremen, 2 bls.
S. Stern Stiner Co., Inc., Deutschland, Hamburg, 2 bls.
W. H. S. Lloyd & Co., Samaria, Liverpool, 11 bls.
J. E. Bernard & Co., Majestic, Southampton, 1 cs.
A. C. Dodman, Jr., Inc., Berengaria, Southampton, 2 bls.

PAPER HANGINGS

Whiting & Patterson Co., Inc., Aquitania, Southampton, 3 cs.
Whiting & Patterson Co., Inc., Majestic, Southampton, 5 cs.
Whiting & Patterson Co., Inc., Berengaria, Southampton, 4 cs.
W. H. S. Lloyd & Co., Minnewaska, London, 9 bls., 5 cs.

NEWS PRINT

Parsons & Whittemore, Inc., Muenchen, Bremen, 796 rolls.
N. Y. Telegram, Cornerbrook, Cornerbrook, 433 rolls.
Brooklyn News, Cornerbrook, Cornerbrook, 998 rolls.
Brooklyn Times, Cornerbrook, Cornerbrook, 1,604 rolls.
Courier News, Cornerbrook, Cornerbrook, 52 rolls.
Bank of Montreal, Cornerbrook, Cornerbrook, 374 rolls.

PRINTING PAPER

Walker Goulard Plehn Co., Muenchen, Bremen, 9 cs.
Keuffel & Esser Co., Deutschland, Hamburg, 6 cs.
P. C. Zuhlke, Veendam, Rotterdam, 37 cs.

WRAPPING PAPER

Birn & Wachenheim, Volendam, Rotterdam, 14 cs.
E. Dietzgen & Co., Volendam, Rotterdam, 43 cs.
Birn & Wachenheim, Aquitania, Southampton, 11 cs.
Birn & Wachenheim, Berengaria, Southampton, 4 cs.
C. Steiner, Deutschland, Hamburg, 19 cs.

PACKING PAPPER

International F'd'g Co., Deutschland, Hamburg, 7 cs.
International F'd'g Co., Veendam, Rotterdam, 32 cs.

DRAWING PAPER

Keuffel & Esser Co., Deutschland, Hamburg, 71 cs.
E. Dietzgen & Co., Tuscania, London, 1 cs.

FILTER PAPER

Lunham & Reeve, Tuscania, London, 1 cs.
H. Reeve Angel & Co., Inc., Tuscania, London, 11 cs.

BASIC PAPER

American Express Co., Volendam, Rotterdam, 55 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Volendam, Rotterdam, 56 cs.
P. C. Zuhlke, Veendam, Rotterdam, 12 cs.
Gevaert Co. of America, Veendam, Rotterdam, 52 cs.
Globe Shipping Co., Veendam, Rotterdam, 25 cs.
Whiting & Patterson Co., Inc., Deutschland, Hamburg, 6 cs.

BARYTA COATED PAPER

Globe Shipping Co., Muenchen, Bremen, 50 cs.
Globe Shipping Co., G. Washington, Bremen, 25 cs.
J. H. Schroeder Banking Corp., G. Washington, Bremen, 37 cs.
J. H. Schroeder Banking Corp., Muenchen, Bremen, 13 cs.

COATED PAPER

Globe Shipping Co., Deutschland, Hamburg, 14 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Celtic, Liverpool, 22 cs. (duplex); 1 cs. (simplex)

TRANSFER PAPER

Fuchs & Lang Manfg. Co., G. Washington, Bremen, 8 cs.

WRITING PAPER

J. Beckhard & Co., Volendam, Rotterdam, 14 cs.
Japan Paper Co., Rochambeau, Havre, 1 cs.
H. Reeve Angel & Co., Inc., Tuscania, London, 1 cs.

COLORED PAPER

W. von Doorn, Volendam, Rotterdam, 11 cs.
S. Gilbert, G. Washington, Bremen, 15 cs.

STENCIL PAPER & INK

Arlac Dry Stencil Co., Deutschland, Hamburg, 62 cs.

TISSUE PAPER

Old Master Paper & Pulp Corp., Deutschland, Hamburg, 54 cs.
G. W. Sheldon & Co., Minnewaska, London, 2 cs.
F. B. Vandegrift & Co., Samaria, Liverpool, 5 cs.
W. J. Byrnes, Celtic, Liverpool, 2 cs.

LITHO PAPER

Arnhold & Co., Pr. Wilson, Canton, 32 cs.
Arnhold & Co., Javanese Prince, Hong Kong, 20 cs.
A. W. Putnam, Javanese Prince, Hong Kong, 2 cs.

CANTON PAPER

J. Wanamaker, Javanese Prince, Hong Kong, 2 cs.

STRAW PULP BOARDS

J. P. Heffernan Paper Co., Coahoma County, Antwerp, 106 rolls.

STRAW BOARDS

Perkins Goodwin & Co., Veendam, Rotterdam, 196 rolls.
A. Vuyk, Veendam, Rotterdam, 191 rolls.
State Bank, Veendam, Rotterdam, 197 rolls.

MISCELLANEOUS PAPER

Standard Products Corp., Rochambeau, Havre, 48 cs.
American Exchange Irving Trust Co., Rochambeau, 24 cs.
R. F. Downing & Co., Paris, Havre, 3 cs.
H. D. Catty & Co., Veendam, Rotterdam, 4 cs.

RAGS, BAGGINGS, ETC.

P. Berlowitz, Volendam, Rotterdam, 92 bls. bagging; 39 bls. rags.
Darmstadt Scott & Courtney, Volendam, Rotterdam, 75 bls. bagging.
Goldman Sachs & Co., Muenchen, Bremen, 206 bls. rags.
Banco Com'l Italiane Trust Co., Muenchen, Bremen, 21 bls. rags.
Chemical National Bank, Muenchen, Bremen, 58 bls. rags.
A. H. Searle, Inc., Caledonia, Glasgow, 233 bls. rags.
Downing & Co., Caledonia, Glasgow, 87 bls. rags.
Brown Bros. & Co., Caledonia, Glasgow, 43 bls. rags.
Bank of The Manhattan Co., Minnewaska, London, 223 bls. rags.
R. F. Downing & Co., Minnewaska, London, 96 bls. rags.
Castle & Overton, Inc., Caledonia, Glasgow, 48 bls. bagging; 250 bls. rags.
H. Muehlstein & Co., Inc., Caledonia, Glasgow, 76 bags scrap paper.
National City Bank, Deutschland, Hamburg, 38 bls. rags.
Brown Bros. & Co., Deutschland, Hamburg, 49 bls. rags.
E. J. Keller Co., Inc., Deutschland, ——, 37 bls. linen threads.
Castle & Overton, Inc., Samaria, Liverpool, 52 bls. paper stock.
W. Schall & Co., American Shipper, London, 225 bls. paper stock.
J. Cohen Son & Co., Inc., Celtic, Liverpool, 27 bls. rags.
Guaranty Trust Co., Carnia, Messina, 33 bls. rags.
D. M. Hicks, Coahoma County, Antwerp, 66 bls. flax pulp.
R. F. Downing & Co., Coahoma County, Antwerp, 7 bls. rags.
G. W. Millar & Co., Coahoma County, Antwerp, 56 bls. bagging.
E. J. Keller Co., Inc., Coahoma County, ——, 200 bls. flax waste.
W. Schall & Co., G. Washington, Bremen, 52 bls. bagging.
National City Bank, G. Washington, Bremen, 16 bls. rags.
Sterling Mill Supply Co., G. Washington, Bremen, 57 bls. rags.
C. R. Spence, Bristol City, Bristol, 143 bls. rags.
Castle & Overton, Inc., Bristol City, Bremen, 88 bls. bagging.
Brown Bros. & Co., Artigas, Dublin, 25 bls. waste paper.
Banco Com'l Italiane Trust Co., City of St. Joseph, Genoa, 203 bls. bagging.
E. J. Keller Co., Inc., City of St. Joseph, ——, 92 bls. bagging.
Green Hamilton & Co., Anaconda, Rotterdam, 101 bls. cotton waste.
S. Birkenstein & Sons, Inc., Anjer, Valencia, 89 bls. rags.
Chemical National Bank, Anjer, Barcelona, 91 bls. rags.
A. H. Searle, Inc., Najer, Marseilles, 32 bls. rags.
B. D. Kaplan, Sarcoxie, Havre, 57 bls. rags.
Darmstadt Scott & Courtney, Sarcoxie, Havre, 47 bls. bagging.
G. W. Millar & Co., Sarcoxie, Havre, 20 bls. rags.
Katzenstein & Keene, Inc., Sarcoxie, Havre, 58 bls. rags; 151 bls. bagging.
V. Galaup, Sarcoxie, Havre, 87 bls. rags.
W. Steck & Co., Sarcoxie, Havre, 253 bls. jute waste.
Brown Bros. & Co., Sarcoxie, Havre, 101 bls. rags.
Katzenstein & Keene, Inc., Sarcoxie, Dunkirk, 265 bls. rags.
American Rag Trading Co., Sarcoxie, Dunkirk, 10 bls. rags.
Salomon Bros. & Co., Sarcoxie, Dunkirk, 35 bls. rags.
J. Rosenberg, Veendam, Rotterdam, 52 bls. rags.
Chemical National Bank, Veendam, Rotterdam, 27 bls. bagging.
P. Berlowitz, Veendam, Rotterdam, 239 bls. rags; 28 bls. bagging.
Leigh Textile Co., Veendam, Rotterdam, 46 bls. thread waste.
Castle & Overton, Inc., London Exchange, London, 55 bls. bagging.
Castle & Overton, Inc., M. Calvo, Barcelona, 279 bls. rags.
E. J. Keller Co., Inc., Burma, ——, 264 bls. rags.

OLD ROPE

Union National Bank, Volendam, Rotterdam, 48 coils.
Brown Bros. & Co., Volendam, Rotterdam, 207 coils, 22 bls.
Brown Bros. & Co., Gourko, Hull, 168 coils, 14 bls.
W. Schall & Co., Deutschland, Hamburg, 68 bls.
Brown Bros. & Co., Deutschland, Hamburg, 35 coils.
American Exchange Irving Trust Co., Rochambeau, Havre, 57 coils.
American Exchange Irving Trust Co., Saturnia, Trieste, 69 coils.
Brown Bros. & Co., Bristol City, Bristol, 80 coils.
Brown Bros. & Co., Veendam, Rotterdam, 40 coils, 30 bls.
Kidder Peabody Accep. Corp., Anjer, Marseilles, 31 bls., 26 coils.

CASEIN

Atterbury Bros., Inc., Rochambeau, Havre, 267 bags.

(Continued on page 66)

West Virginia Pulp and Paper Company

Manufacturers of

SUPERCALENDERED and MACHINE FINISHED BOOK and LITHOGRAPHIC PAPERS

Offset, Envelope, Bond, Writing, Cover and Music Paper, High Grade Coated Book, Index Bristol, Post Card, Kraft and Label Papers.

also

Bleached Spruce Sulphite and Soda, Kraft Pulp

200 Fifth Avenue New York — 732 Sherman Street Chicago

503 Market St., San Francisco, Cal.

122 East 7th St., Los Angeles, Cal.

Sixth and Chestnut Sts., Philadelphia, Pa.

SOME PAPER MILL USERS OF *Badenhausen Boilers Superheaters :: Preheaters*

Geo. F. Hardy, Consulting Engineer, New York
For Southern Paper Co., two orders, total 4700 H.P.
For St. Croix Paper Co. .....1200 H.P.
For Brown Paper Mill Co. .....3430 H.P.
Central Paper Co., Muskegon, Mich., four orders, total .....3100 H.P.
Philadelphia Paper Mfg. Co., Phila., three orders, total .....2400 H.P.
Jessup & Moore Paper Co., Phila., four orders, total .....4750 H.P.
Ontario Paper Co., Ltd.
For Daily Newspaper Co., North Tonawanda, N. Y. .....2034 H.P.
Filer Fibre Company, Filer City, Mich. .....1500 H.P.
John Lang Paper Co., Philadelphia, Pa..... 416 H.P.
Bayless Manufacturing Corp., Austin, Pa.....1300 H.P.
Northern Board & Paper Co., San Francisco, Cal., two orders, total ..... 400 H.P.
Crown Willamette Paper Co., San Francisco, Cal., two orders, total ..... 750 H.P.
Delaware Hard Fibre Co., Wilmington, Del., two orders, total ..... 920 H.P.
Kieckhefer Container Co., Delair, N. J. .....1800 H.P.

Badenhausen Corporation

Reg. U. S. Pat. Off.
GENERAL OFFICE, 1011 CHESTNUT ST.
PHILADELPHIA, PA., U. S. A.

120 Broadway, New York — 211 Tramway Bldg., Denver
Reibold Bldg., Dayton, O. — 513 House Bldg., Pittsburgh
1019 Guardian Life Bldg., St. Paul

Diamond Alkalies Include
58% Soda Ash 76% Caustic Soda
Bicarbonate of Soda
Laundry Soda
Cleaner and Cleanser
Special Alkali

The Success of *Your* Product

The success of your product depends, primarily, on the uniform quality of the raw materials used in your manufacturing processes. That is why it is vitally important to use Alkalies of the highest grade. Diamond quality never varies.

Diamond Alkali Company
Pittsburgh, Pa., *and Everywhere*

ALKALI

Imports of Paper and Paper Stock

(*Continued from page 64*)

A. Klipstein & Co., Rochambeau, Havre, 250 bags.
National City Bank, Rochambeau, Havre, 286 bags.
Tradesmans National Bank, Satartia, B. Aires, 1,668 bags, 100,080 ks.

WOOD PULP

Polaris Shipping Co., C. Gerhard, Sonora, 982 cords wood pulp.
M. Gottesman & Co., Inc., Lucia C., Sebenico, 2,400 bls. wood pulp.
J. Andersen & Co., Lucia C., Trieste, 2,465 bls. wood pulp.
M. Gottesman & Co., Inc., Gonzenheim, Iggesund, 1,500 bls. sulphate, 300 tons; 250 bls. sulphite, 50 tons.
Bulkley, Dunton & Co., Gonzenheim, ——, 2,600 bls. wood pulp, 520 tons.
Bulkley Dunton & Co., Walter Luckenbach, ——, 865 bls. wood pulp.
Bulkley Dunton & Co., New York, ——, 250 bls. wood pulp.
E. J. Keller Co., Inc., Veendam, ——, 300 bls. wood pulp.

WOOD FLOUR

A. Kramer & Co., Volendam, Rotterdam, 400 bags.
State Chemical Co., Volendam, Rotterdam, 420 bags.
The Burnet Co., Anaconda, Rotterdam, 1,000 bags, 50,000 kilos.

PHILADELPHIA IMPORTS.

WEEK ENDING JULY 14, 1928

M. Friedman, Coahoma County, Antwerp, 107 bls. rags.
J. E. Bernard & Co., Coahoma County, Antwerp, 15 cs. printing paper.
Union Bank & Trust Co., Bristol City, Bristol, 57 coils old rope.
E. Butterworth & Co., Inc., Bristol City, Bristol, 79 bls. rags.
D. J. Murphy, Anaconda, Rotterdam, 130 bls. rags.
Castle & Overton, Inc., Anaconda, Rotterdam, 213 bls. rags.
Wilkinson Bros. & Co., Inc., Anaconda, Rotterdam, 58 cs. packing paper.
New England Waste Co., Anaconda, Rotterdam, 89 bls. cotton waste.
E. J. Keller Co., Inc., Anaconda, ——, 615 bls. rags.
J. H. Whitwell, Sarcoxie, Havre, 1 cs. wall paper.
E. J. Keller Co., Inc., Sarcoxie, ——, 260 bls. rags.
A Hurst & Co., Sarcoxie, Havre, 23 bls. rags.
G. W. Millar & Co., Sarcoxie, Havre, 33 bls. rags.
V. Galaup, Sarcoxie, Havre, 169 bls. rags.
E. A. Stone & Co., Inc., Sarcoxie, Havre, 62 bls. rags.
J. M. Jaffe, Sarcoxie, Havre, 51 bls. rags.
International By-Products Co., Sarcoxie, Havre, 80 bls. rags.
International By-Products Co., Sarcoxie, Dunkirk, 174 bls. rags.
Castle & Overton, Inc., Sarcoxie, Dunkirk, 48 bls. rags.
J. M. Hagy Waste Works, Sarcoxie, Dunkirk, 76 bls. rags.
G. W. Millar & Co., Sarcoxie, Dunkirk, 103 bls. rags.
Robert Blank, Sarcoxie, Dunkirk, 57 bls. rags.
Katzenstein & Keene, Inc., Sarcoxie, Dunkirk, 258 bls. rags.
E. A. Stone & Co., Inc., Sarcoxie, Dunkirk, 97 bls. rags.
E. J. Keller Co., Inc., Sarcoxie, ——, 130 bls. rags.
E. J. Keller Co., Inc., Anjer, ——, 212 bls. rags.
D. I. Murphy, Anjer, Barcelona, 38 bls. rags.
Equitable Trust Co., Anjer, Barcelona, 268 bls. rags.
E. J. Keller Co., Inc., Anjer, ——, 308 bls.
E. J. Keller Co., Inc., Winona, ——, 150 bls. rags.
Bulkley Dunton & Co., W. Luckenbach, ——, 868 bls. wod pulp.
Castle & Overton, Inc., Indep. Hall, France, 81 bls. rags.
Castle & Overton, Blydendyk, Germany, 1,260 bls. wood pulp.
Castle & Overton, Hagen, Germany, 2,130 bls. wood pulp.
Castle & Overton, Inc., Westfalen, Germany, 142 bls. rags.
Castle & Overton, Inc., Ontario, France, 528 bls. rags.
Castle & Overton, New York City, England, 133 bls. rags.

BOSTON IMPORTS

WEEK ENDING JULY 14, 1928

M. Gottesman & Co., Inc., Lucia C., Sebenico, 3,200 bls. wod pulp.
Bulkley Dunton & Co., Gonzenheim, ——, 2,050 bls. wood pulp, 350 tons.
American Exchange Irving Trust Co., Gonzenheim, Hernosand, 4,200 bls. sulphate pulp, 711 tons.
Perkins Goodwin & Co., Gonzenheim, Obbola, 7,000 bls. sulphate pulp, 1,000 tons.
Green Hamilton & Co., Anaconda, Rotterdam, 48 bls. cotton waste.
E. A. Stone & Co., Inc., Anaconda, Rotterdam, 85 bls. rags.
Atterbury Bros., Inc., Satartia, B. Aires, 1,250 bags casein, 75,000 ks.
Tradesmans National Bank, Satartia, B. Aires, 417 bags casein, 25,020 ks.
Kalbfleisch Corp., Satartia, B. Aires, 834 bags casein, 50,040 ks.
1st National Bank of Boston, Satartia, B. Aires, 667 bags casein, 40,020 ks.
Bulkley Dunton & Co., J. Skinner, ——, 250 bls. wood pulp.
Bulkley Dunton & Co., Titania, ——, 250 bls. wood pulp.
E. J. Keller Co., Inc., Mercer, ——, 183 bls. rags.
Castle & Overton, Inc., West Harcuvar, Germany, 2,381 bls. wood pulp.
Castle & Overton, Inc., Blydendyk, Holland, 1,180 bls. wood pulp.

BALTIMORE IMPORTS.

WEEK ENDING JULY 14, 1928

Ayres W. C. Jones, Hoxie, Manchester, 14 bls. cotton waste.
National City Bank, City of St. Joseph, Marseilles, 76 bls. rags.
Congoleum Nairn Co., City of St. Joseph, Leghorn, 141 bls. rags.
Guaranty Trust Co., City of St. Joseph, Leghorn, 468 bls. rags.
C. B. Richard & Co., City of St. Joseph, Naples, 135 bls. rags.
National City Bank, City of St. Joseph, Naples, 89 bls. rags.
Guaranty Trust Co., City of St. Joseph, Naples, 281 bls. rags.
Bulkley Dunton & Co., Sutherland, ——, 905 bls. wood pulp.
Bulkley Dunton & Co., Willbabco, ——, 901 bls. wood pulp.
Woodpulp Service Corp., Westerwald, Hamburg, 2,250 bls. wood pulp.
Castle & Overton, Inc., Hagen, Germany, 3,226 bls. wood pulp.

TAMPA IMPORTS

WEEK ENDING JULY 14, 1928

E. C. Palmer Co., Gonzenheim, Hamburg, 60 cs. printing paper.

NORFOLK IMPORTS.

WEEK ENDING JULY 14, 1928

Norfolk Despatch, Cornerbrook, Cornerbrook, 970 rolls news print.
Portsmouth Star, Cornerbrook, Cornerbrook, 115 rolls news print.
Bank of Montreal, Cornerbrook, Cornerbrook, 757 rolls news print.
Knoxville News, Cornerbrook, Cornerbrook, 516 rolls news print.
Bank of Montreal, Cornerbrook, Cornerbrook, 123 rolls news print.
Norfolk Post, Cornerbrook, Cornerbrook, 377 rolls news print.
Castle & Overton, Inc., Hagen, Germany, 708 bls. wood pulp.

NEW ORLEANS IMPORTS

WEEK ENDING JULY 14, 1928

Woodpulp Service Corp., Trolleholm, Norway, 1,200 bls. wood pulp.

PORTLAND IMPORTS

WEEK ENDING JULY 14, 1928

Bulkley Dunton & Co., Gonzenheim, ——, 5,000 bls. wood pulp, 1,000 tons.

NEWPORT NEWS IMPORTS

WEEK ENDING JULY 14, 1928

Norfolk Leader, Cornerbrook, Cornerbrook, 1,667 rolls news print.
Norfolk Times, Cornerbrook, Cornerbrook, 2,034 rolls news print.
M. Gottesman & Co., Inc., Gonzenheim, Germany, 3,250 bls. sulphite, 650 tons.
Castle & Overton, Inc., Blydendyk, Germany, 900 bls. wood pulp.

Paper Mill for Salt Lake, Utah

SALT LAKE, Utah, July 6, 1928.—A $2,500,000 paper mill is planned for Salt Lake, it was announced at a membership meeting of the Salt Lake chamber of commerce, at which E. M. Ashton was succeeded as president by James J. Burke.

Thereon H. Tracy, consulting engineer, made the statement regarding the mill. He said this plant will be one of the finest in the country, will have a capacity of 30,000 tons of paper a year and will give employment to between 500 and 1000 persons.

The plant when completed will cover from 75 to 100 acres of unoccupied and hitherto unprofitable land in Salt Lake County was stated, while the allied industries which will come as a natural consequence of a paper plant being located here, will bring between $10,000,000 and $15,000,000 to Salt Lake.

Made First Vice Pres. of Weston Co.

DAYTON, Ohio, July 16, 1928.—At a meeting of the board of directors, held July 9 at the office of the company, on Bacon street, Dayton, Ohio, K. I. Herman was elected first vice president of the Weston Paper and Manufacturing Company. Mr. Herman's headquarters will be at the main office of the company, 422 Bacon street, Dayton, Ohio.

Carl Cajanus at Marathon

Carl A. Cajanus, who has been doing consulting engineering work in Chicago, Ill., has joined the engineering staff of the Marathon Paper Mills, Rothschild, Wis.

GOOD RAGS
FOR PAPER MILLS

NEW CUTTINGS

THE LESHNER PAPER STOCK CO.

INCORPORATED

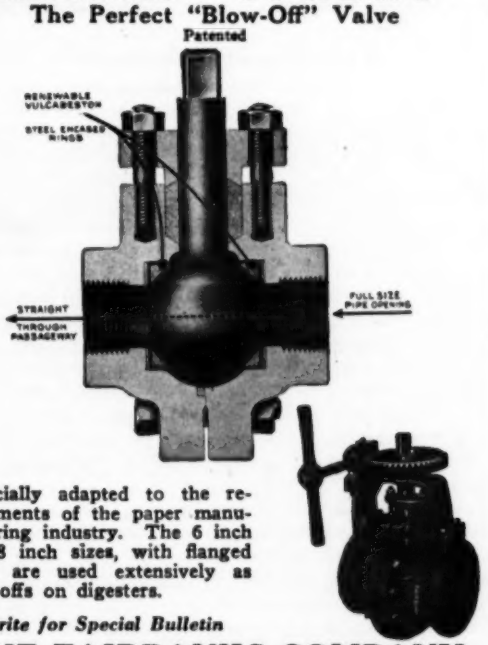
HAMILTON, OHIO.

BRANCH—CLEVELAND, OHIO

FAIRBANKS' *"SPHERO"*

The Perfect "Blow-Off" Valve

Patented



Especially adapted to the requirements of the paper manufacturing industry. The 6 inch and 8 inch sizes, with flanged ends, are used extensively as blow-offs on digesters.

Write for Special Bulletin

THE FAIRBANKS COMPANY

BOSTON NEW YORK PITTSBURGH

Factory: Binghamton, N. Y.

Distribution in ALL Principal Cities

TRIUNE

AND

MULTIPLE PLY DRYER FELTS

Serve every Felt Purpose in an efficient and satisfactory way.

ENGLISH or BAKER WOVEN

Made in three, four, five and six ply—60" to 214" wide.

FITCHBURG DUCK MILLS

FITCHBURG, MASS.

For 82 Years Makers of Fine Faced Felts for Papermakers

GRIFFITH-HOPE

Dispensing Cabinets

AND

Fixtures

ARE

The STANDARD of the PAPER TRADE

For Towels, Toilet, Napkins, Etc.

GRIFFITH-HOPE CO., West Allis, Wisc.

New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, July 18, 1928.

While the demand for the various grades of paper was rather light during the past week, the local market is still exhibiting a sound undertone. Inquiries for future business are fairly numerous and although the sales forces of the leading paper organizations have been relaxing their efforts to some extent, a general expansion of trading is anticipated after Labor Day.

News print production has fallen off slightly but offerings are sufficient for current requirements. According to the News Print Service Bureau stocks of news print paper, at Canadian mills totalled 47,937 tons at the end of June and at United States mills 39,979 tons, making a combined total of 87,916 tons, which was equivalent to 5.9 days' average production.

The paper board market is practically unchanged. The various grades are in seasonal request and prices rule steady. The fine paper industry is fairly active, with numerous small orders in the market for immediate requirements. Tissues continue in excellent request for the season. The coarse paper market is rather spotty at present, but wrapping paper is moving in fairly satisfactory volume.

Mechanical Pulp

No radical changes were recorded in the ground wood market. Demand is normal for the time of the year. Most of the business transacted recently has been along routine lines. While accumulations are believed to be not excessive, supplies in hand are fairly plentiful. Prices are generally holding to the levels which have prevailed for some considerable time.

Chemical Pulp

The chemical pulp market continues in a strong position. Inquiries for future business are numerous. Offerings of both imported and domestic chemical pulp are decidedly scarce at present and prices generally rule steady to firm. Contract shipments are moving into consumption at a steady pace and are absorbing practically all supplies received since open water cargoes began to arrive.

Old Rope and Bagging

Both foreign and domestic old rope and bagging are in excellent request for the season. Offerings are in about sufficient volume to take care of current needs. Prices are holding to schedule, without difficulty. The bagging market is moderately active. Gunny scrap is in fair demand and burlap business is normal.

Rags

More mill interest is being manifested in foreign and domestic rags, although the amount of trading being accomplished is not large. Cotton cuttings are still in persistent request. Roofing stock is also in improved demand. Mixed rags are rather quiet at present. Prices on all grades are practically unaltered.

Waste Paper

Trading in the paper stock market has quieted down considerably due to the usual midsummer conditions. Book stock is less active and old kraft, manilas and shavings are also rather quiet. No. 1 mixed paper continues in excellent request. Stocks in the hands of the mills are said to be low and some liveliness should develop when consumers find it necessary to replenish their supplies.

Twine

Most of the business transacted in the twine market during the past week was along routine lines. Demand is seasonable and the position of the industry is sound for the time of the year. In most quarters, a general expansion of trading is looked for in the closing months of the year. Prices remain steady and unchanged.

Slow Demand in Indianapolis

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., July 17, 1928.—As the trade goes into midsummer with its seasonable dullness, there is more inclination of the part of the local paper trade to cut prices. Business is confined to an entirely current basis and likely will remain so until the opening of the fall season. The demand is very spotted just now and some of the jobbers who have been caught with fairly large stocks are pressing business and using the price concession as the crowbar. The thing is justified by the jobbers on the ground that the same principle is involved as pertains to department stores when they are caught with some stock that will not move. These lines are merely being marked down for clearance purposes, a purely legitimate method of merchandising.

The trade this spring and summer in building papers has been rather disappointing. Roll roofing, lining papers and similar stock has not been moving. This is due partly to weather conditions and also to the fact that not so much building is in prospect for the state as usual.

Staple grades in fine papers, including ledgers and printing papers, are moving rather steadily. No attempt is being made to cut the price on these grades. News print is not being sold in as large volume as this time last year, advertising in the larger city papers is perhaps larger than last year, but the slump has come in the smaller papers in rural communities where business is dead.

Mill representatives report that jobbers have cut their purchases to the bone, evidently anticipating a dull July and August. The general policy on the part of local jobbers for the last six months has been to keep their stocks at a low ebb, but keep them well balanced. This policy likely will continue for the first of the fall season and perhaps longer unless there is a definite indication of greatly increased business.

Schroon River Erects Storage Building

[FROM OUR REGULAR CORRESPONDENT]

WARRENSBURG, N. Y., July 17, 1928.—The Schroon River Pulp and Paper Company has under construction a new building adjoining its plant which when completed will be used for storage purposes. Increased business at the plant is said to have made necessary additional space for storage. The building will be completed at an early date and will be put in use immediately.

S. Norman Goes With Spaulding Paper Co.

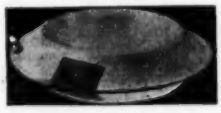
Sigurd Norman, formerly superintendent of Northwestern Pulp and Paper Company, Tacoma, Wash., is now mill manager of the Spaulding Pulp and Paper Company of Newberg, Ore.

Paprus Pie Plates
Sell faster

because they sell more pies! Because they hold the pie in the same shape as the tin plate in which it was baked. Because they are rigid, absorbent and keep bottom crusts flaky.

Build a bigger pie plate business with Paprus Pie Plates. Write for jobbers' terms.

Paprus Pie Plates used as covered container



PAPRUS
PIE PLATES

KEYES FIBRE COMPANY, INC.
General Sales Offices: GRAYBAR BLDG., NEW YORK
Factory: Waterville, Me. JOHN M. HART COMPANY, INC., *Manager of Sales*

Starch—

A SIMPLE change in the manufacturing process often results in a pronounced decrease in cost of production.

Paper Mills use Starch for sizing to produce better and stronger sheets with lower cost of manufacture.

Our SPECIAL PAPER brand for beater-sizing increases strength of sheet and gives improved finish.

Our FOX HEAD brand for top-sizing is more economical than all glue-size.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York City

ACER & CO., LIMITED

Canada Cement Building

MONTREAL, CANADA

SULPHITE PULP
(Bleached, Easy Bleaching, Strong)

MECHANICAL PULP

KRAFT PULP

KRAFT PAPER

BUILDING PAPER

Cable Address "Acerbity" Montreal

CODES
Western Union (5 letter)
A.B.C. (5th Edition)

TAYLOR, STILES & COMPANY
GIANT
REGELSVILLE, N.J. U.S.A.

RAG CUTTERS

TAYLOR, STILES & COMPANY
Riegelsville, N. J., U. S. A.

Canadian Representatives
Waterous Engine Works Company, Ltd., Brantford, Ont., Can.

Sole Agents for Europe
R. J. Marx, 133-139 Finsbury Pavement, London, E. C.

Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, July 18, 1928.

BLANC FIXE.—The blanc fixe market was moderately active during the past week. Both the pulp and the powder are moving into consumption at a normal pace. The pulp is still quoted at $40 per ton, in bulk, and the powder is selling at from 3½ cents to 3⅝ cents a pound, in barrels, at works.

BLEACHING POWDER.—Contract withdrawals of bleaching powder are going forward in normal volume for the season. Demand for this product is mostly routine. Prices are holding to previously reportel levels. Bleaching powder is offered at from $2.00 to $2.35 per 100 pounds, in large drums, at works.

CASEIN.—The undertone of the casein market is strong. Offerings are rather limited and prices have advanced slightly. Domestic casein is now selling at from 16½ cents to 17¼ cents a pound. Imported casein is quoted at from 16¾ cents to 17¼ cents, all in bags, car lot quantities.

CAUSTIC SODA.—While demand for caustic soda is light at present, the market is in a sound position. Prices are steady and unchanged. Solid caustic soda is quoted at from $2.90 to $2.95 per 100 pounds. The flake and the ground are selling at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Most of the business transacted in the china clay market was along routine lines. Prices remain unchanged. Imported china clay is selling at from $15 to $25 a ton, ship side. Domestic paper making clay is quoted at from $8 to $9 a ton, at mine and pulverized at from $10 to $12 a ton.

CHLORINE.—Steadiness prevails in the chlorine market. Demand for this product is persistent. Prices are holding to schedule. Chlorine is quoted at 3½ cents a pound, in tanks, or multi-unit cars, at works on contract orders. The spot quotation ranges from 3¾ cents to 4 cents a pound.

ROSIN.—The rosin market continues to fluctuate. Demand is mostly routine. At the naval stores, the grades of gum rosin used in the paper mills are quoted at from $9.85 to $9.95 per 280 pounds, ex dock, in barrels. Wood rosin is selling at from $7.50 to $8.30 per 280 pounds, southern shipping points.

SALT CAKE.—Offerings of salt cake are about sufficient to take care of current requirements. Shipments against contract are going forward in good volume. Salt cake is quoted at from $15 to $17 a ton, in bulk, at works. Chrome salt cake is selling at from $14 to $15 a ton, in bulk, at works.

SODA ASH.—Demand for soda ash is satisfactory for the season. Contract withdrawals are well up to average. Prices are holding up to the levels which have prevailed for some considerable time. Contract quotations on soda ash, in car lots, at works, are as follows: in bags, $1.32½, and in barrels, $1.55.

STARCH.—Although trading in the starch market was rather light, recently advanced prices are being maintained without difficulty. Supplies are moving into consumption at a normal pace. Special paper making starch is quoted at $4.22 per 100 pounds, in bags, and at $4.39 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—No radical changes transpired in the sulphate of alumina market. Prices are generally holding to schedule and there is not much talk of concessions around. Commercial grades are selling at from $1.40 to $1.55 per 100 pounds, in bags, at works. The iron free is quoted at from $1.90 to $2.05.

SULPHUR.—Conditions in the sulphur market remain unchanged. Supplies are moving into consumption in a satisfactory manner for the season. Prices are steady and unaltered. Sulphur is offered from $18 to $19 a ton, in bulk, at mine, on contract. The spot quotation is still $20 per ton.

TALC.—The talc market is in sound position. While most of the business transacted recently has been routine, contract shipments are still going forward regularly. Domestic talc is quoted at from $16 to $18 a ton, in bulk, at eastern mines. Imported is selling at from $18 to $19 a ton, in bags, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.35	@ 7.75
M. F.	6.25	@ 7.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	4.00	@ 4.25
Southern	3.75	@ 4.00
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

Boards—per ton—		
News	47.50	@50.00
Straw	52.50	@55.00
Chip	45.00	@47.50
Binders' Boards	65.00	@67.50
Sgl. Mla. Ll. Chip.	52.50	@55.00
Wood Pulp	80.00	@85.00
Container	67.50	@72.50
85 test Jute Liner.	57.50	@60.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	30.00	@31.25
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@29.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.65	@ 4.25
Easy Bleaching	2.70	@ 2.90
No. 1 strong unbleached	2.60	@ 2.70
Mitscherlich unbleached	2.65	@ 3.25
No. 2 strong unbleached	2.50	@ 2.60
No. 1 Kraft	2.60	@ 2.75
No. 2 Kraft	2.40	@ 2.50
Sulphate—		
Bleached	3.75	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.60	@ 2.75
News Sulphite	2.40	@ 2.65
Mitscherlich	3.00	@ 3.70
Kraft (Domestic)	2.70	@ 3.30
Soda Bleached	3.35	@ 3.50
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.65

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1.	11.75	@12.25
New White, No. 2.	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.50	@11.00
Washables	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	6.75	@ 7.25
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.25	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.50	@ 5.00
White, No. 2—		
Repacked	3.00	@ 3.50
Miscellaneous	2.50	@ 2.75
St. Soiled, White	2.00	@ 2.15
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.55	@ 1.65
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Dark Cuttings.	2.50	@ 3.00
New Mixed Cuttings.	2.75	@ 3.25
Ord. Light Prints.	2.25	@ 2.50
New Light Silesias.	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.00
Unbleached Cottons.	10.00	@11.00
New White Cuttings.	10.50	@11.50
New Light Oxfords.	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
No. 1 White Linens.	7.25	@ 8.00
No. 2 White Linens.	5.50	@ 6.25
No. 3 White Linens.	4.50	@ 5.00
No. 4 White Linens.	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Med. Light Prints	1.90	@ 2.10
Dutch Blue Cottons	2.25	@ 2.50
German Blue Linens.	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 2.00
Lindsay Garments	1.85	@ 1.95
Dark Cottons	1.60	@ 1.70
Old Shopperies	1.55	@ 1.65
New Shopperies	1.45	@ 1.55
French Blues	2.10	@ 2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.65	@ 1.75
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, heavy	1.60	@ 1.65
Bright Bagging	1.60	@ 1.65
Small Mixed Rope	1.25	@ 1.40
Manila Rope—		
Foreign	3.00	@ 3.25
Domestic	3.25	@ 4.00
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.25	@ 3.50
Hard, White, No. 2	2.75	@ 3.00
Soft, White, No. 1	2.50	@ 2.65
White envelope cuttings	3.25	@ 3.50
Flat Stock—		
Stitchless	1.65	@ 1.75
Overissue Mag.	1.65	@ 1.75
Solid Flat Book	1.50	@ 1.60
Crumpled No. 1	1.20	@ 1.30
Solid Book Ledger	2.00	@ 2.10
Ledger Stock	1.70	@ 1.80
Manilas—		
New B. B. Chips	.65	@ .75
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.75	@ .85
Container	.60	@ .70
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	1.75	@ 1.85
News—		
No. 1 White News	1.45	@ 1.55
Strictly Overissue	.80	@ .90
Strictly folded	.55	@ .65
No. 1 Mixed Paper	.45	@ .50
Common Paper	.30	@ .35

The

ST. REGIS PAPER COMPANY

Daily Capacity 525 TONS

Newsprint
Catalog and Directory Papers
Fibre Wrapping Papers
Packers Oiled Manila
Specialties

General Sales Office

15 Broad St., New York

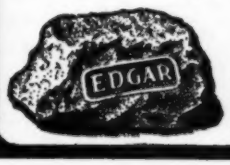
Farmers' Bank Bldg.
Pittsburgh, Pa.

PERFORATED METALS

of Every Description
For Pulp and Paper Mills
THE HARRINGTON & KING PERFORATING CO.
5652 Fillmore St., Chicago, Ill.
NEW YORK OFFICE: 114 Liberty St.

Clay
300 tons daily
AMERICAN MADE FOR AMERICAN TRADE

H. T. BRAND COATING CLAY
and
High Grade Filler Clay
A product developed as a result of 43 years experience in washing American Clays. Today being used in many of the largest paper mills.
Ask for Samples.



The
EDGAR BROS. CO.
50 Church St. New York

The Babcock & Wilcox Co.
85 LIBERTY STREET, NEW YORK
ESTABLISHED 1868

Water Tube Boilers Steam Superheaters
Economizers Air Preheaters
Chain Grate Stokers Oil Burners
Refractories
Seamless Tube and Piping

BRANCH OFFICES

ATLANTA	Candler Building
BOSTON	80 Federal Street
CHICAGO	Marquette Building
CINCINNATI	Traction Building
CLEVELAND	Guardian Building
DALLAS, TEXAS	Magnolia Building
DENVER	444 Seventeenth Street
DETROIT	Ford Building
HOUSTON, TEXAS	Electric Building
LOS ANGELES	Central Building
NEW ORLEANS	344 Camp Street
PHILADELPHIA	Packard Building
PHOENIX, ARIZ.	Heard Building
PITTSBURGH	Farmers Deposit Bank Building
PORTLAND, ORE.	Failing Building
SALT LAKE CITY	Kearns Building
SAN FRANCISCO	Sheldon Building
SEATTLE	L. C. Smith Building
HONOLULU, T. H.	Castle & Cooke Building
HAVANA, CUBA	Calle de Aguiar 104
SAN JUAN, P. R.	Recinto Sur 51

Twines

(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¼	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¼	@	.06½
Southern Kraft	.03¾	@	.04
No. 2 Kraft	.04	@	.04¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¾
Manila Tissue—			
24x36 Sheet	.07	@	.07¾
White Tissue—			
20x30 Sheet	.07¼	@	.07½
Boards, per ton— (Delivered Central Territory)			
Plain Chip	37.50	@	41.00
Solid News	47.50	@	—
Manila Lined Chip	55.00	@	—
Container Lined— (Delivered Central Territory)			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.80	@	2.90
White Env. Cuttings	2.90	@	3.00
No. 1 Soft Shavings	2.50	@	2.60
No. 1 Mixed	1.00	@	1.05
No. 2 Mixed	.90	@	1.00
Ledger & Writings	1.55	@	1.65
Solid Books	1.25	@	1.35
Blanks	1.70	@	1.80
Kraffs	1.90	@	2.00
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.90	@	1.00
Folded News (oversize)	.65	@	.75
Old Newspapers—			
No. 1	.65	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.70	@	.80
Roofing Stocks— (F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.08½	@	.09
Manila Sul., No. 1	.04½	@	.06
Manila, No. 2	.04	@	.04½
No. 2 Kraft	.05¾	@	.05½
No. 1 Kraft	.06	@	.06¼
Common Bogus	.02¾	@	—
Straw Board	50.00	@	75.00
News Board	47.50	@	—
Chip Board	42.50	@	45.00
Wood Pulp Board (Carload Lots)	4.50	@	5.00
Binder Boards—			
No. 1, per ton	80.00	@	90.00
No. 2, per ton	75.00	@	80.00
Carload lots	65.00	@	75.00
Tarred Felts—			
Regular	58.00	@	63.00
Slaters (per roll)	84	@	.94
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.44	@	1.54
Best Tarred, 3-ply	1.93	@	2.08
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.11½	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable	.03½	@	.04
Fancy	.05½	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	—	@	.04
New Black Soft	.05½	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03½
New Canvas	.05	@	.05½
New Black Mixed	.05	@	.05½

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps	1.40	@	1.50
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	—	@	2.50

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.20	@	3.25
No. 2 Hard White	2.75	@	3.00
No. 1 Soft White	2.40	@	2.50
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	2.00	@	2.10
Writing Paper	1.70	@	1.80
No. 1 Books, heavy	1.70	@	1.80
No. 2 Books, light	1.25	@	1.40
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	.95	@	1.00
Container Manila	.80	@	.90
Old Kraft	2.25	@	2.50
Common Paper	.50	@	.55
No. 1 Mixed Paper	.55	@	.60
Straw Board, Chip	.60	@	.65
Binders Board, Chip	.60	@	.65
Overissue News	.75	@	.80
Old Newspaper	.50	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	4.00
White, No. 2—			
Repacked	.02¼	@	.02¾
Miscellaneous	.01¾	@	.02
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.80	@	2.00
Black Stockings	3.75	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.40	@	1.50
No. 3	1.25	@	—
No. 4	1.25	@	—
No. 5A	.85	@	.90
B	.80	@	.90
C	.70	@	.80

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05½	@	.06½
No. 2 Kraft	.03¾	@	.04½
Common Bogus	.02¼	@	.02¾
Delivered New England points			
Straw Boards, rolls	.009		52.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp lined board	52.50	@	57.50
Single White, patent coated board bender	72.50	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.45	@	2.55
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	1.55	@	1.60
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.20	@	1.25
White Blank News	1.40	@	1.50
Old Kraft	2.00	@	2.10
Print Manila	.70	@	.80
No. 1 Mixed Paper	.47½	@	.50
Overissue News	.70	@	.80
Old Newspapers	47.50	@	52.50
Box Board, Chip	.65	@	—

Bagging

(Price f. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.60
Manila Rope—			
Foreign	3.00	@	3.25
Domestic	3.25	@	3.50
Mixed Strings	.85	@	1.00
Scrap Burlaps	1.50	@	1.60
Scrap Sisal	1.25	@	—
Scrap Sisal for shredding	1.50	@	—
Wool Tares, heavy	—	@	1.50
New Burlap Cutting	—	@	2.00

Domestic Rags (New)

(Price f. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09	@	.10
Silesias, No. 1	.07	@	—
New Unbleached	.09½	@	.10
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06	@	.06½
New Black, soft	.04	@	.04¾
Khaki Cuttings	.04	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08	@	.08¾

Domestic Rags (Old)

(Price f. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Thirds and Blues—			
Repacked	2.00	@	2.15
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.25	@	1.35
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.65	@	1.70
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	5.00	@	5.50
New Checks & Blues	4.50	@	4.65
Old Fustians	1.90	@	—

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10½	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¼	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	14.50	@	—
No. 2 Coated and Litho	13.50	@	—
No. 3 Coated and Litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.00	@	—

Pulp

(F. o. b. Mill)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	62.00	@	—
Sulphite news grade	62.00	@	—
Sulphite, bleached	75.00	@	—
Sulphate	65.00	@	—

Old Waste Paper

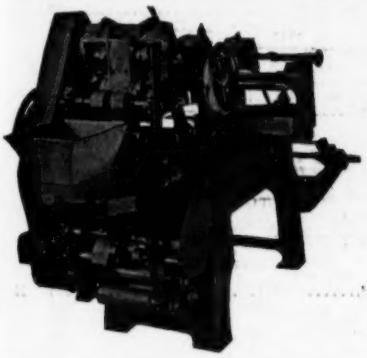
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk, News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.80	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.11½	@	—
Fancy Shirt Cuttings	.05½	@	—



HIGHEST SPEED
Paper Bag Machinery

Get My Quotations Before Placing Your Orders
Special Machinery Designed and Built

A. L. PARRISH,
1702 Robinson St., South Bend, Ind.

Maintains your high standards of quality papers

ALPHA FIBRE
for the making of fine paper

Alpha Fibre's exceptionally high cellulose content imparts to papers those outstanding qualities which previously were obtainable only through the use of good rags.

Paper hitherto made without rag stock, can be brought to the high quality goal by the use of Alpha Fibre.

WRITE FOR PARTICULARS

BROWN COMPANY
founded 1852
PORTLAND, MAINE
PULP SALES DIVISION

The B Co. QUALITY PULPS

HAFSLUND NORWAY — **"HAFSLUND BEAR" Bleached Sulphite**

F:HAGA — **"FORSHAGA" Bleached Sulphite**

KRAFT HURUM NORWAY SPECIAL — **"HURUM SPECIAL" Extra Strong Kraft**

KOOS BAC — **"BAMBLE" Extra Strong Kraft**

Fresh Monthly Shipments—No Closed Winter Season

The Borregaard Company
Incorporated
200 FIFTH AVENUE NEW YORK, N. Y.

Dietz Toilet Paper Machines
For making Toilet and Paper Towel Rolls
(With or without perforations)

Self Adjusting — Easy to Operate

Also

AUTOMATIC TUBE MACHINES

Manufacturers of Sanitary Crepe Towel Machines, Slitting and Rewinding Machines, Drop Roll Slitting Machines, Photo Mount Beveling Machines, Rotary Card Cutting Machines, etc.
Correspondence solicited

DIETZ MACHINE WORKS
126-128 W. Fontaine Street
Cor. Waterloo St., (between Front & Second St.)
and below Diamond St.
Phila., Penna., U. S. A.

As Good Results With Less Rosin

By standardizing on Hercules Wood Rosin you can obtain good size fastness of the paper with the minimum quantity of rosin. This product is widely used except where light or white color is of prime importance.

Because of its uniformity and freedom from foreign material it simplifies the sizing room practice.

Our Service Department will assist you in determining when and how you may use Hercules Wood Rosin to advantage.

HERCULES POWDER COMPANY
(INCORPORATED)
943 Market Street
Wilmington Delaware

Paper Mill Stocks and Bonds

Quoted by Messrs. McGay & Co., 25 Broad street, New York City, to whom all inquiry for quotations on these or any other Securities is referred

BONDS	BID	ASKED
Abitibi Fibre Company 6s, 1947	104	105
Abitibi Power & Paper 6s, 1940	104½	106½
Abitibi Power & Paper 6s, serially to 1936	100	102
A. P. W. Pulp & Power 7s, 1945	101½	103½
American Writing Paper 6s, 1947	84	86
Bastrop Pulp & Paper 6½s, 1940	103½	105½
Beaver Board 8s, 1933	102	103
Beaver Products Corp. 7½s, 1942	109	111
Bedford Pulp & Paper 6½s, 1942	98	100
Belgo-Canadian Paper 6s, 1943	103	105
British-Columbia Pulp & Paper 6s, 1950	90	92
Brompton Paper Serial A 6s, 1946	101	103
Brompton Pulp & Paper 6s, 1935	100	...
Brown Paper Mills Serial 6s, 1941	99	101
Brown Company 5½s, 1946	99	101
Bryant Paper 6s, 1942	100	101½
Canadian Paper Board 7s, 1937	97½	99½
Cape Breton Pulp & Paper 6s, 1932	103	...
Celotex Company 6s, 1929	97	99
Celotex Company 6½s, 1939	100	102
Celotex Company of Chicago Debenture 6s, 1936	97	100
Central Paper Company Serial 6½s, 1942	86	89
Central Paper 7s, 1934	85	90
Champion Coated Paper Serial 6½s, 1934	100	...
Champion Coated Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 8s, 1930	100	...
Champion Paper Corp. 6s, 1945	95	98
Chicago Mill & Lumber Serial 5½s, 1936	98	100
Container Corp. of America Debenture 6s, 1936, ex-warrants	101	104
Continental Paper Products 6½s, 1943	92	95
Cornell Wood Products 7½s, 1937	103	...
Crown Willamette 6s, 1951	102	103½
Dells Paper & Pulp Serial 6s, 1938	95	98
Dixon Board Mills Serial 6s, 1942	60	...
Donnaconna Paper 5½s, 1948	95	98
Eastern Manufacturing Co. 7s, 1938	98	100
Escanaba Paper Serial 6s, 1939	98	100
Escanaba Paper 6½s, 1935	96	99
Filer Fibre Serial 7s, 1935	90	95
Fort Orange Paper 7s, 1942	103	...
Fort William Paper 6s, 1946	101	104
Fox River Paper 7s, 1931	100	...
Fraser Company 6s, 1950	103	105
Hammermill Paper Serial 6s, 1939	101	...
Hawley Pulp & Lumber 6s, 1946	96	...
Hawthorne Paper Company 6s, 1937	80	...
Hoberg Paper & Fibre 7s, 1937	95	97
Industrial Fibre Corp. Debenture 8s, 1933	100	...
International Paper 6s, 1955	102	104
International Paper 5s, 1947	99	100
Itasca Paper & Prairie River Paper Serial 5½s, 1938	99½	...
Itasca Paper & Prairie River Paper Serial 6s, 1938	99	...
Jessup & Moore First 6s, 1945	88	92
Kalamazoo Vegetable Parchment 6s, 1938	99	101
Lake Superior Pulp & Paper 6s, 1941	105	108
Manitoba Paper 6½s, 1936	102½	104½
Marathon Paper Mills Serial 5½s, 1942	99½	101
Marathon Paper Mills Serial 6s, 1937	100	...
Marinette & Menominee 7½s, 1936	103	105
Mead Pulp & Paper 5% Notes Serially, 1937	95	100
Mead Fibre 7s, 1937	98	101
Menosha Printing & Carton 6½s, 1939	99½	...
Midwest Box Company 6½s, 1940	100	...
Minnesota Ontario Paper Serial 6s, 1945	97½	100
Murray Bay Paper 6½s, 1947	102	105
Munissing Paper Serial 6s, 1936	98	...
Nekoosa Edwards Paper 6s, 1942	96	...
Ontario Pulp & Paper 6s, 1931	108½	110½
Orono Pulp & Paper 6s, 1943	99	...
Orono Pulp & Paper 5s, 1941	96½	...
Oswegatchie Paper Serial 6s, 1932	95	100
Oswego Falls Corp. 6s, 1941	99	102
Oxford Paper 6s, 1947	102½	...
Paepcke Paper Mills 7s, 1930	99	...
Parker-Young Company 6½s, 1944	98	100
Paterson Parchment Paper 6s, 1938	101½	103
Penobscot Chemical Fibre 6s, 1942	102	105
Port Alfred Pulp & Paper 6½s, 1943	105	107
Port Alfred Pulp & Paper 5½s, 1947	98½	100
Price Brothers 6s, 1943	105	...
Provincial Paper 5½s, 1947	98½	...
Provincial Paper 6s, 1940	100	...
Queen City Paper 7s, 1933	98½	...
Richardson & Company 6s, 1938	100	...
River Raisin Paper 6s, 1936	99	101
Riordan Pulp & Paper 6s, 1942	102	104
Rolland Paper 6s, 1937	99	101
St. Anne Paper 6½s, 1946	102	104
St. Croix Paper Serial 5s, 1937	99	...
St. Helen Pulp & Paper 6½s, 1931	99	102
St. Lawrence Paper Mills 6s, 1946	103	...
St. Lawrence Paper Mills 6½s, 1936	100½	102½
St. Maurice Valley Corp. 6s, 1945	102	104
St. Maurice Valley Corp. 5½s, 1947	98½	100½
St. Regis Paper of Canada 6s, 1931	100	101½
St. Regis Paper of Canada 6½s, 1934	100	101
Smith (Howard) Paper Mills 6s, 1934	101	...
Smith (Howard) Paper Mills 7s, 1941	104	106
Southern Paper Company 6½s, 1937	100	...
Spanish River Pulp & Paper 6s, 1931	108	110
Stevens-Thompson Paper 6s, 1942	94	96
Taggart Brothers 6s, 1944	95	100
Tait Paper & Color Industries 6s, 1935	88	92
Ticonderoga Pulp & Paper 5s, 1930	94	
Ticonderoga Pulp & Paper 6s, 1940	100	102
Tomahawk Kraft Paper 6s, 1938	98	...
Tomahawk Pulp Paper 7s, 1932	99	...
Tonawanda Paper 5½s, Series 1941	99	102
U. S. Envelopes 5s, Series 1934	99	...
Union Bag & Paper Power 6s, 1932	98	100
United Wall Paper Factories 6s, 1947	96	99
Warren (S. D.) Company 6s, 1945	103	105
Watab Paper 6½s, 1942	101½	103½
Waterway Paper Products 6s, 1931	100½	101½
Wayagamack Pulp & Paper 6s, 1951	103	105
Westfield River Paper Serial 7s, 1943	89	91
Whitmer-Parsons Pulp & Lumber 8s, 1938	20	25
Whitaker Paper 7s, 1942	108	110

STOCKS	BID	ASKED
American Box Board, Pfd.	9¼	10¼
American Box Board, Com.	9¼	10¼
Am. Tissue Mills, 7% Pfd.	90	93
British Columbia P. & P., Pfd.	65	75
Brompton Pulp & Paper, 8% Pfd.	100	102
Brown Corp., 7% Pfd.	104	None Off
Champion Fibre, 7% Pfd.	108	110
Diem & Wing, 7% Cum Pfd.	92	97
Eastern Mfg. Co., 1st Pfd.	60	63
Great Northern Paper, Com.	75	78
Hammermill Paper, new 6% Pfd.	98	100
Hinde & Dauch, Com.	125	None Off.
Hinde & Dauch, 6% Pfd.	102	None Off.
Holyoke Card & Paper	150	None Off.
Marathon Paper Mills, Com.	125	...
Midwest Box Co., 8% Pfd.	98	102
Midwest Box Co., 6% Pfd.	95	99
Louis De Jonge Co., 7% Pfd.	94	97
Oxford Papers, Com.	115	135
Oxford Paper Co., Pfd.	108	111
Penobscot Chemical Fibre, Com.	70	80
Richardson Co., Com.	160	180
Rubberoid	101	103
Sabin Robbins Paper Co., 7% Pfd.	105	110
St. Croix Paper	155	170
St. Regis Paper Co., 7% Cum. Pfd.	105	108
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper Company	55	60
West Virginia Pulp & Paper, Pfd.	100	103
Whittaker Paper, 7% Cum. Pfd.	105	None Off.

Black-Clawson Complete Additions

DAYTON, Ohio, July 9, 1928.—A new addition to the plant of the Black-Clawson Company, paper mill machinery manufacturers, at Second and Vine streets, Hamilton, will be completed within a few days at a cost of approximately $60,000.

Since acquiring the Shartle Brothers Machine Company at Middletown in the fall of 1926, the Hamilton concern's business has grown by leaps and bounds. The Middletown branch sends all of its patterns to Hamilton for casting in addition to the regular business that the local company had previous to that time. More than a year ago, officials finding themselves cramped for space due to the new business, decided on a building project.

The new structure is 60 feet wide and 80 feet long and is of open construction. This will enable extension as business increases. The building is so erected that cranes will extend from the main part to the new addition. In connection with this, the company had also seen fit to build an industrial railroad which will extend a length of 200 feet. This will be used to transport heavy materials about the plant. The entire structure is concrete and steel columns and trusses have been used.

Besides this new addition, the F. K. Vaughn Construction company, contractors for the extension, has erected a pump house which will pump all the water for the entire plant.

The Black-Clawson company formerly received its water supply from the city waterworks, but officials of that company believed that their own water system could be installed and put in service at less expense.

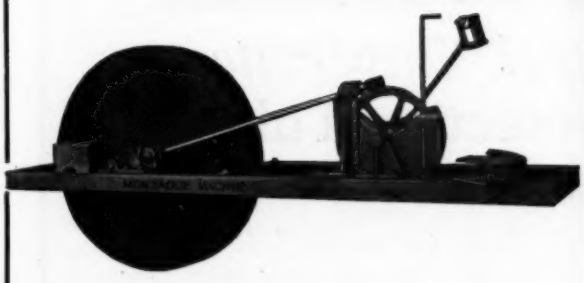
A Pattern Storage building is also included in the building project. This will store all the patterns received from the Middletown branch.

One of the features of the new extension is that the local concern can now make a "heat" each day whereas in former days they made a "heat" only every other day.

R. O. Snelling Injured

PORTLAND, Ore., July 6, 1928.—R. O. Snelling, manager of the Oregon Pulp and Paper Company's mill at Salem, was injured in an automobile accident recently when his car left the highway and was completely demolished. The wreckage took fire and was burned. Mr. Snelling's injuries were painful cuts and bruises.

Automatic White Water Sampler



Market trends are placing greater emphasis all the time on economies in paper making.

Losses come out of profits. Of these white water losses are possibly the most important and they are also among the most elusive.

This Sampler was developed to give a positive and dependable check on white water losses without resort to guess-work.

Ask for Bulletin W-1

Montague Machine Co.

Turners Falls, Mass.

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SEVENTH YEAR

Published Every Thursday by the

LOCKWOOD TRADE JOURNAL CO., Inc.

GEO. S. MACDONALD, President — J. K. LASSER, Secretary

Executive and Editorial Offices, 10 East 39th Street, New York
Chicago Office: 123 West Madison St

TABLE OF CONTENTS

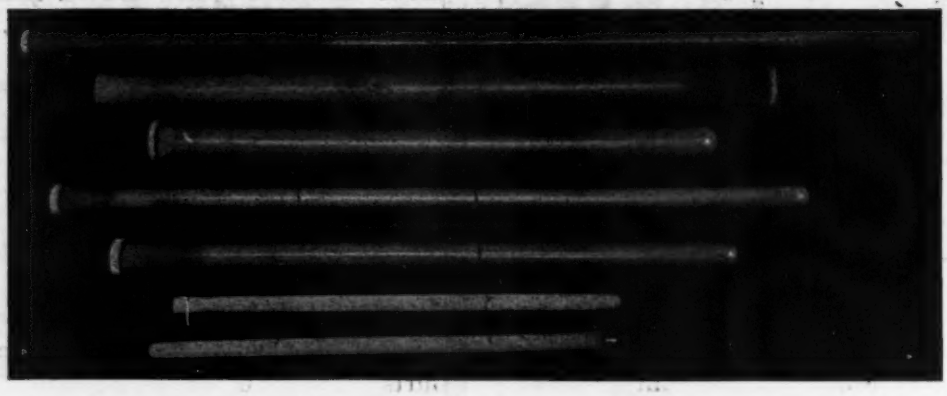
Copyright, 1928, by Lockwood Trade Journal Co., Inc.

W. R. Hearst Sued by Canadian News Mills 23
Pennsylvania Mills Broaden Production 24
Bag Manufacturers Raise Prices 24
New Stock Issued by Scott Paper Co 25
I. P. Becoming Large Utility Organization 25
Construction Begun on Mobile Kraft Mill 25
Abitibi to Centralize in Ontario 26
Great Lakes Paper Co. Makes Bond Issue 27
Lafayette Box Co. Increases Stock 27
Fox River Valley News 28
Kimberly-Clark Executives Confer 28
High Water in Northern New York 28
Hartford City Paper Co. to Build 28
Paper Demand Satisfactory in Chicago 29
Chicago Paper Association to Meet 29
Boston Paper Market Shows Seasonal Trend 30
Champion Paper Co. To Make Improvements 30
American Paper Industry and Export Trade 31
Dexter Manifold in Big Demand for Air Mail 32
Construction News 33
Obituary 34
New York Trade Jottings 35
Power Plant Section 36
Big Imports and Exports for May 46
Editorial 50
J. F. Auer Explains 51
Technical Section
Jordan Efficiency 53
Oxy-Acetylene Welding Reduces Overhead in the Paper Mill 55
Chemicals Used in Paper Making 58
Index to Technical Section, Vol. 86 59
Current Paper Trade Literature 62
Cost Section 63
Wisconsin Ready for TAPPI Fall Meeting 68
Paper Mill Stocks and Bonds 74
New York Market Review 76
Miscellaneous Markets 78
Market Quotations 78

THE PAPER TRADE JOURNAL is indexed in Industrial Arts Index

Want and For Sale Advertisements 83, 84, 85, 86

To Measure Higher Temperatures in Paper Mills



The New McDanel Impervite Thermocouple Protection Tube

Urgent demand has arisen in the paper-making industry for a new pyrometer protection tube that will stand higher temperatures and quicker rises and, at the same time, be mechanically stronger than the instruments in present use.

To meet this demand, Engelhard has developed the McDanel Impervite Protection Tube with these features: 1. It can be used in temperatures up to 2900° F.; 2. It is impervious to all gases at all temperatures; 3. It can be used in oxidizing or reducing atmospheres and is especially resistant to alkalis and slags; 4. It will not crack under rapidly changing temperatures; 5. It will outlast all other tubes now obtainable because of its essential characteristics; 6. It is moderately priced.

FEATURES

1. High-fired.
2. Gas-tight.
3. Chemically inert.
4. Resistant to thermal shock.
5. Mechanically strong.
6. Long lived.
7. Moderately priced.

We are able to deliver any quantities of this tube from stock. Tell us the length and inside diameter of the tubes you need and let us quote you prices. We shall be glad to give you, on request, any further details you may desire of this "new tube at a moderate price."

Recording and Indicating Instruments.
Gas Analyzers.
Thermocouples.

"Knowledge is Power"

Automatic Temperature and Gas Controls.
Thermometers.
Pyrometers.

Charles Engelhard, Inc.

Boston, New York, Pittsburgh, Cincinnati, Cleveland, St. Louis, Los Angeles

90 Chestnut St.
NEWARK, N. J.

Canadian Rep.: General Supply Co. of Canada, Ltd., Montreal, Ottawa, Toronto.

For 30 years makers of reliable industrial instruments for measuring, recording, and controlling heat or gas.